Textile Industries

Formerly "COTTON"

A W. R. C. Smith Publication

JANUARY, 1954

The good old subsidy 145

Plan to run saran? Watch these points! 87

Convert your loopers 91

Too much waste handling? Try a carousel 98

How American Thread does the job (finishing) . . . 104

These mills homogenize . . . 110

Keep elevators on the go . . 111
(25 photos show how)

Guaranteed lubrication at Dorr Woolen 119

Will we blend the fiber or the polymer? . . . 121

Dyeing Orlon knit goods . . 124

Pros and cons of grounding power supply . . 125

Does point buying solve cotton blending problem? . 128

18 weaving practices 131

Complete contents on page 3

News begins on page 4

JACOBS

"VERYBEST"
RUBBERWELD
LUG STRAPS

Made entirely of rubberized cotton fabric
More uniform than any other lug strap!

Samples available

- UNIFORMITY
  Provides unvarying pick action
- HIGH QUALITY ARMY DUCK
  Construction gives extra strength
- NO PERMANENT STRETCH
  — Resists oils — not affected by humidity
- EXTRA-DURABLE
  Plug or heel reduces adjustments
- MOLDED AS ONE PIECE
  Entirely, including plug
- NO RIVETS
  or parts to work loose

THE BULLARD CLARK COMPANY

JACOBS

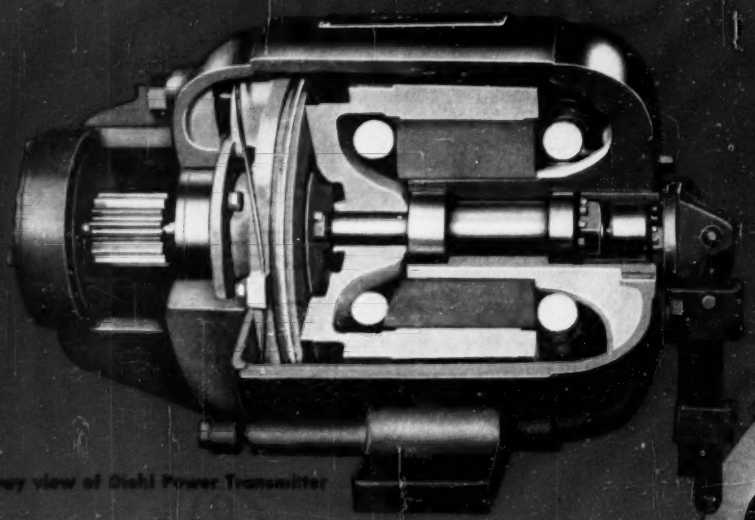
SOUTHERN DIVISION
Charlotte, N. C.

NORTHERN DIVISION
Danielson, Conn.

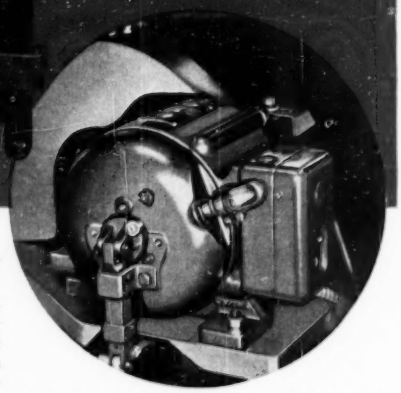
Next Month: Case history reports of equipment performance in mills

Diehl POWER TRANSMITTER FOR YOUR LOOMS

. . . assures maximum weaving speeds with peak operating efficiency!



Cutaway view of Diehl Power Transmitter



Note the *inverted rotor,* which revolves around the outside of the stator on a hollow shaft. Provides the essential high inertia without the mechanical disadvantages of a separate fly wheel.

Pinion driving shaft, to which clutch plate is fastened, passes through hollow rotor shaft and is shifted axially by simple lever at front end of motor, thus controlling clutch engagement pressure and eliminates thrust bearing on the loom.

Cork friction rings are mounted on both sides of clutch plate, which may be shifted by shipper handle linkage to contact either the rotor or cast iron brake shoe, thus starting or stopping the loom.

The Diehl Power Transmitter is a unit comprised of an inverted high inertia motor, a clutch and a brake – integrated to provide a compact "power package" that meets the industry's need for ample, consistent power with instantaneous precise operating control.

Leading textile mills are using thousands of Diehl Power Transmitters on looms made by the DRAPER CORPORATION of Hopedale, Mass. – many of which have been in continuous use for as much as five years!

Mill men are enthusiastic about the advantages derived from the use of the Diehl Power Transmitter, including . . .

- "Stored power" for smooth, rapid starts and positive picking.
- Precision Braking.
- Minimum fluctuations of speed and motor current.
- Lower power consumption.
- Lower motor heat losses.
- Lack of current regeneration.
- Simplicity and ease of maintenance which has resulted in increased work loads for fixers and weavers at many mills.

. . . all of which adds up to increased *mill production, improved quality of cloth, lowered operating costs and long, trouble-free service.*

We will welcome an opportunity to tell you – without obligation – how the Diehl Power Transmitter can bring these benefits to you.

2199

DIEHL MANUFACTURING COMPANY

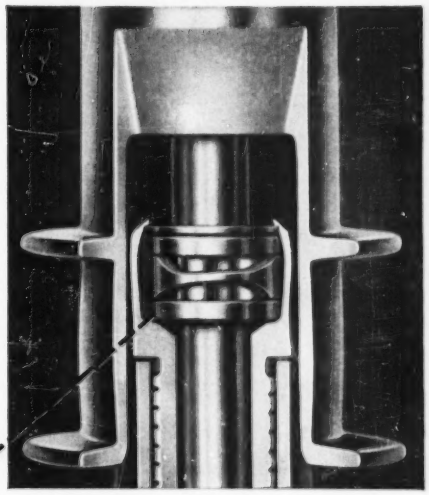
Electrical Division of THE SINGER MANUFACTURING COMPANY

FINDERNE PLANT, SOMERVILLE, NEW JERSEY

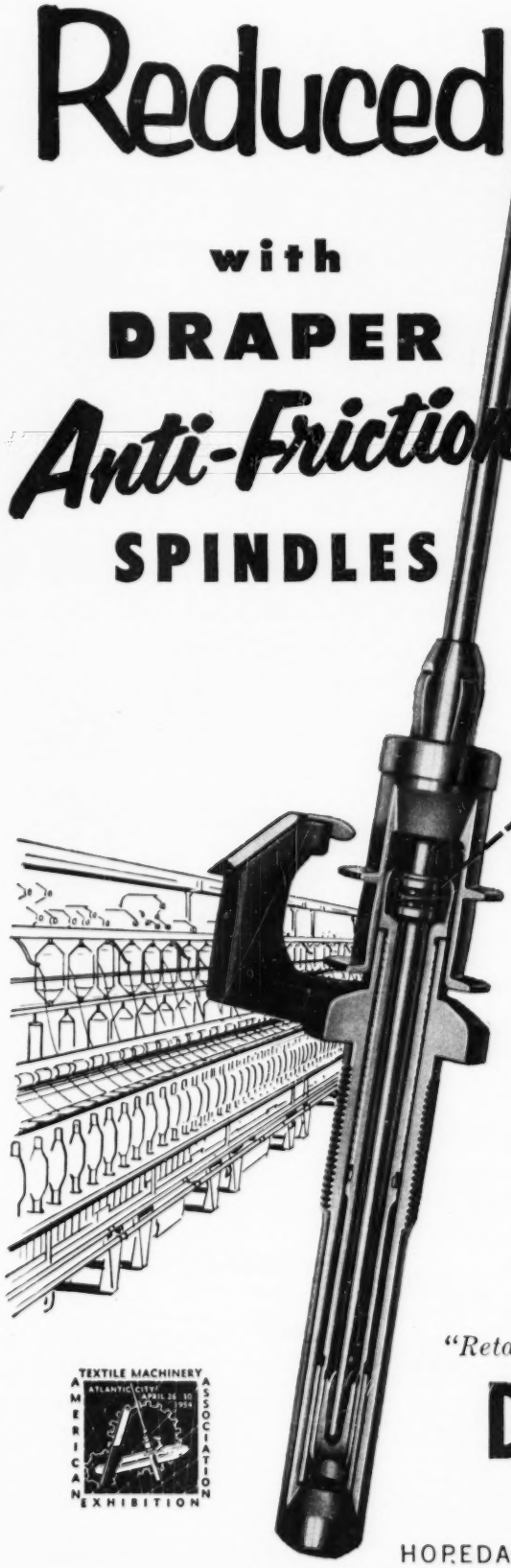
ATLANTA • BALTIMORE • BOSTON • CHICAGO • DETROIT • NEW YORK • PHILADELPHIA • WORCESTER

Reduced Vibration!

with DRAPER *Anti-Friction* SPINDLES



Anti-Friction Bearing close-up.



More uniformity and better quality of yarn.

Increases spindle speed over conventional types . . . with no increase in ends down.

Drastically reduces bolster replacement.

Adaptable to wide range of loads.

Reduces oiling cycle for lower labor costs . . . insures cleaner yarns.

Designed by manufacturers with nearly a century of spindle experience.

See your Draper Service Engineers . . . *men with practical mill experience* . . . for additional information and installation assistance.

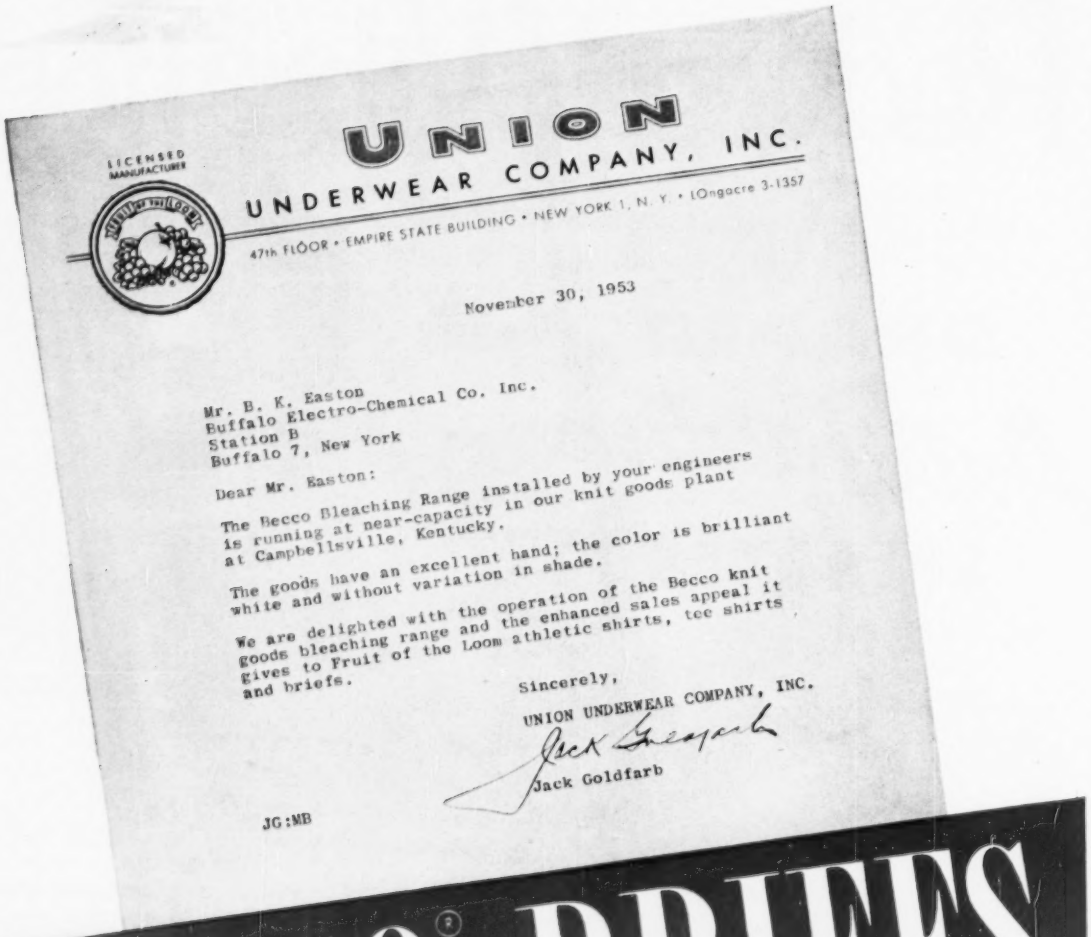
TEXTILE MACHINERY EXHIBITION — AMERICAN ASSOCIATION — ATLANTIC CITY APRIL 26-30 1954

"Retaining Leadership through Research"

DRAPER CORPORATION

HOPEDALE, MASS.

ATLANTA, GA. GREENSBORO, N. C. SPARTANBURG, S. C.



LICENSED MANUFACTURER

UNION UNDERWEAR COMPANY, INC.

47th FLOOR • EMPIRE STATE BUILDING • NEW YORK 1, N. Y. • LOngacre 3-1357

November 30, 1953

Mr. B. K. Easton
Buffalo Electro-Chemical Co. Inc.
Station B
Buffalo 7, New York

Dear Mr. Easton:

The Becco Bleaching Range installed by your engineers is running at near-capacity in our knit goods plant at Campbellsville, Kentucky.

The goods have an excellent hand; the color is brilliant white and without variation in shade.

We are delighted with the operation of the Becco knit goods bleaching range and the enhanced sales appeal it gives to Fruit of the Loom athletic shirts, tee shirts and briefs.

Sincerely,

UNION UNDERWEAR COMPANY, INC.

Jack Goldfarb

JG:MB

BECCO® BRIEFS

Continuous Knit Goods Bleaching with Hydrogen Peroxide

At the plant of the Union Underwear Co., Campbellsville, Ky., a continuous Becco bleaching range is now processing 135,000 pounds weekly of finest quality cotton knit tubing.

This complete installation is based on Becco laboratory research and development . . . installed under the direction of Becco engineers . . . and was in commercial operation a few days after installation was complete.

Send the coupon and we shall supply detailed information on the Becco Continuous Knit Goods Bleaching Range.

Buffalo Electro-Chemical Company, Inc.

DIVISION OF FOOD MACHINERY AND CHEMICAL CORPORATION

fmc

Sales Agent: BECCO SALES CORPORATION, Station B, Buffalo 7, N.Y.
Buffalo • Boston • Charlotte • Chicago
New York • Philadelphia • Vancouver, Wash.

Please send me complete information on the Becco Continuous Knit Goods Bleaching Range.

Name .....

Company .....

Street ..... Zone ..... State .....

City .....

NBP ABC CCA

Textile Industries

Formerly "COTTON"

Vol. 118, No. 1
January, 1954

CONTENTS

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Additional Items

Management

Stiffer Mill Competition 71
The Guaranteed Wage 73
When and How to Buy Machinery 75
A Gruesome Sight—This Training Aid 118
Talk Over Production Goals with Your Employees 123
Book to Train Union Leaders of Interest to Mills 149
Mark Locations of Fire Extinguishers 169

Cotton

Roving Handling System Eliminates Storage on Frame Creel Tops 81
Cotton Textile Manufacturing, Korean Style 147
Do You Need a Fringe Roll? 161
Waste Sorting Table Saves Time 162
Loom Settings for Print Cloth 162
Standby Sliver for Broken Ends on Cotton Combs 167

Wool

Wool Classification by Staple? 71
Wool Committee Recommends Marketing Survey 73
Stud Change Cuts Mule Breakdowns 167

Synthetics

Improved Acrylic Fiber 73
Behavior of Protein Fibers 75
Drawing Frame Coiler Unit Facilitates Processing of Long Staple Fibers 85

Wet Process

Big Savings with Continuous Roll Feed for Printing Machines 81
"Package" Control Units for Size Cooking 83
Stainless Steel Cloth Truck for Dyehouse Use 85

Knitting

Hosiery Knitters Warned About Sweaters 71
Union Labor Gets Hosiery Wholesale 75
Fitted Sheets of Nylon Tricot 75
Having Trouble Sewing Supported Plastic Outerwear? 157
Easy Way to Remove Valve Seat Bushings 169

DEPARTMENTS

Shorts and Remnants 4
Personal Notes About Men You Know 22
News in Brief 71
Textile Industry Activity Charts 75
An Executive Views the News 77
Future Events 79
New Equipment and Materials 81
How Other Men Manage 159
Helpful Booklets Free 183
What the Textile Mills Are Doing 193
Suppliers' News 201

Features

	SPIN-WEAVE	WOOL	SYNTHETICS	WET PROCESS	KNITTING
Avoid These Mistakes When Processing Saran Monofilament 87			•		
Convert Full-Fashioned Loopers to Seamless 91					•
Waste Handling Cost Excessive? Consider a Waste Carousel 98	•				
Versatility—the Keystone at American Thread 104	•			•	
Homogenized Size Discussed at Clemson STA Meet 110	•		•	•	
Pictorial Check-List for Elevator Maintenance 111	•	•	•	•	•
Spinning Frame Lubrication Assured at Dorr Woolen 119		•			
Blending at Fiber and Polymer Levels (TRI annual meet) 121	•	•	•		
Tips on Dyeing Orlon Knit Goods 124			•	•	•
Ground Power Supply Systems? (Raleigh AIEE meet) 125	•	•	•	•	•
Does Point Buying Solve Blending Problem? No! (Research Finding No. 11) 128	•				
Georgia Mill Men Hold Weaving Discussion 131	•		•		
The Good Old Subsidy 145	•	•	•	•	•
Wool Men: Here Are Reports on Modern Equipment (NAW&WO meeting) 150		•			

General and Technical

	SPIN-WEAVE	WOOL	SYNTHETICS	WET PROCESS	KNITTING
Metallic Clothing and Neps Discussed by STA at Durham 90	•				
Lest They Forget Machinery Replacement Costs 103	•	•	•	•	•
Apparel Fabric Containing Ramie Now Produced Commercially 109	•	•	•	•	•
Effect of Atmospheric Conditions on Testing Certain Cotton Fiber Properties 127	•				
Condensate in Air Lines of Humidification System Collected in Tank 143	•	•	•		
Ever Think of This, Mr. Spinning Overseer 155	•				
Check Proposed Auxiliary Dryers for Efficiency 159	•		•		
Useful Platform Aids in Cleaning Boiler Tubes 161	•	•	•	•	•
Take-Up Roller for Kalio 51 and 60 Gauge F-F Machines 165					•
Tips on Weaving Sateen 165	•				

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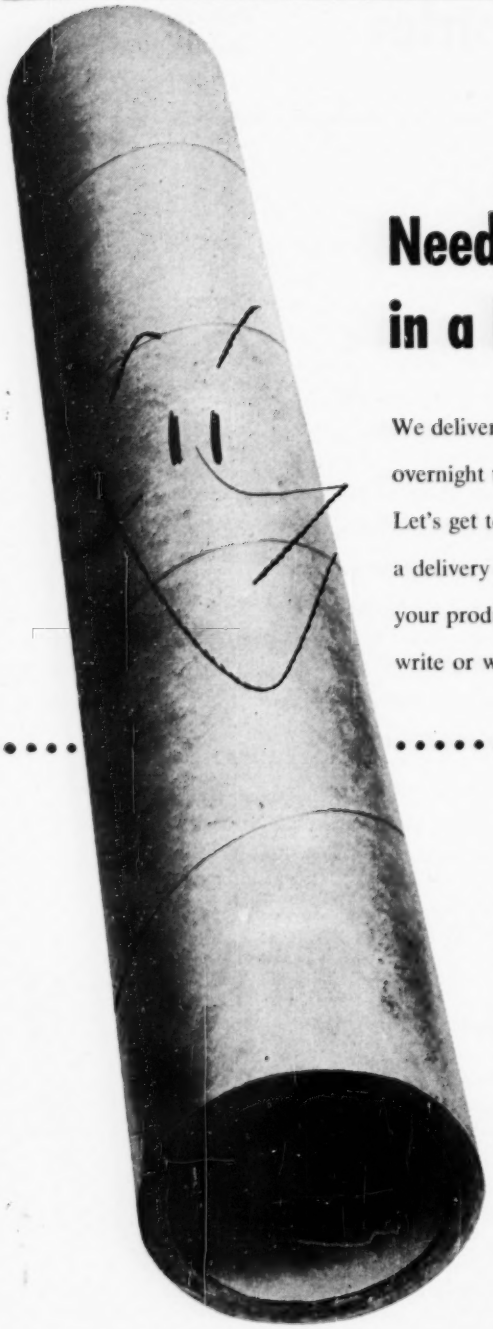

Need tubes in a hurry?

We deliver them practically overnight to any mill in the South. Let's get together and work out a delivery schedule that fits in with your production schedule. Telephone, write or wire!

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Convolute and Spiral Wound Cloth Tubes

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Prompt delivery by our own trucks throughout the South

Shorts and Remnants

► HAP-py Noo Year! And may all your P&L sheets be bright.

► Despite the prognostications of economic forecasters and soothsayers Ole S&R finds it difficult to be gloomy for 1954. Without any if's, and's, or but's, we'll say 1954 holds for you and the textile industry a turn for the better. (Clip this out to mail to us next year if we're off base; we'll eat our words.)

► And we are not kidding about eating them. We've learned a good recipe. All returned clip sheets will be toasted to a deep brown in the oven, ground to fine particles, then spread over a good steak, along with garlic, salt and butter, and eaten in front of competent observers. (Don't forget to send the steak along with the clip sheet.)

► For those who lose election bets and must eat their shirts or hats, other recipes to make them more palatable are available (write on company letterhead for full particulars).

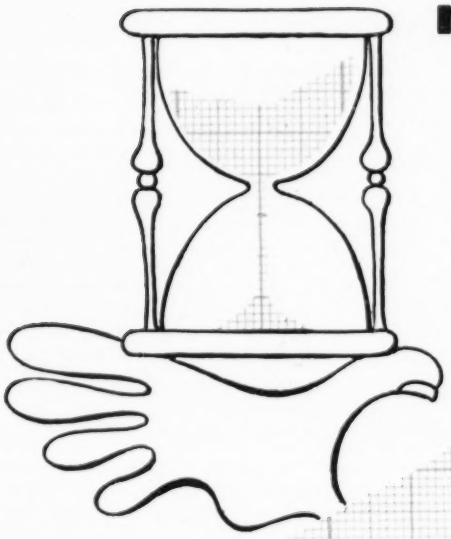
► With the turn of the New Year the new trend will be toward better merchandising, for the mills as well as for the suppliers. However, if you look out the window and see a dozen suppliers' salesmen at the front gate, they really won't be trying to sell you anything. They are just bearing invitations for you to attend the big Atlantic City Show in April. You'd be wise to go, and send Joe.

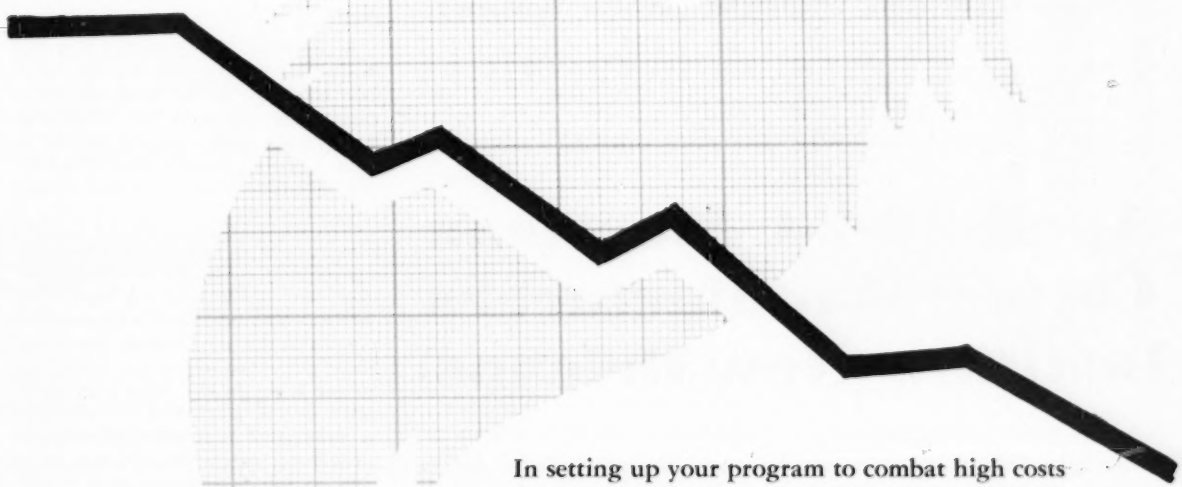
TEXTILE MACHINERY AMERICAN EXHIBITION ASSOCIATION ATLANTIC CITY APRIL 26-30 1954

► Easterners who experienced this winter's smog and who tried to identify acquaintances through cellophane envelopes, will be interested in a new material by Firestone which protects automobile tires from smog, smoke, and even chemical fumes. We know one scientist who is working along the same lines to protect the faces, necks, and ears of little boys

time to trim

maintenance costs





In setting up your program to combat high costs during the new year, perhaps maintenance expense offers an opportunity for important dollar savings. It's a controllable expense— nd one that can often be sharply reduced through improved lubrication.

If you haven't analyzed this important phase of maintenance recently, we suggest that you talk to a Gulf Sales Engineer. He will make some worth-while suggestions that will help you reduce costs and improve the performance of your equipment.

GULF SERVES INDUSTRY

GULF OIL CORPORATION · GULF REFINING COMPANY
PITTSBURGH 30, PA.

1954

January 25-28—Plant Maintenance & Engineering Show (Chicago)

February 1-2—National Cotton Council of America (Atlanta)

March 18-20—Alabama Cotton Manufacturers Association (Biloxi)

April 7-10 Cotton Manufacturers Association of Georgia (Boca Raton)

April 22-24 American Cotton Manufacturers Institute (New Orleans)

April 26-30 American Textile Machinery Exhibition (Atlantic City)

(Plan to go—and send Joe)

Shorts and Remnants

from dirt; when perfected, they won't have to wash them—just stand in front of a fan and let the accumulation blow away.

► Just because we have guaranteed a good year for 1954, don't think we're going to do all the work; your industrial engineering department must also be on the ball. The English are ahead of us already in one respect. For instance, time and motion experts have forbidden low-cut dresses for women operatives in a factory at Southampton. They calculated that all the glances, which the men employees threw at the girls, resulted in a monthly labor loss of 57 hours.

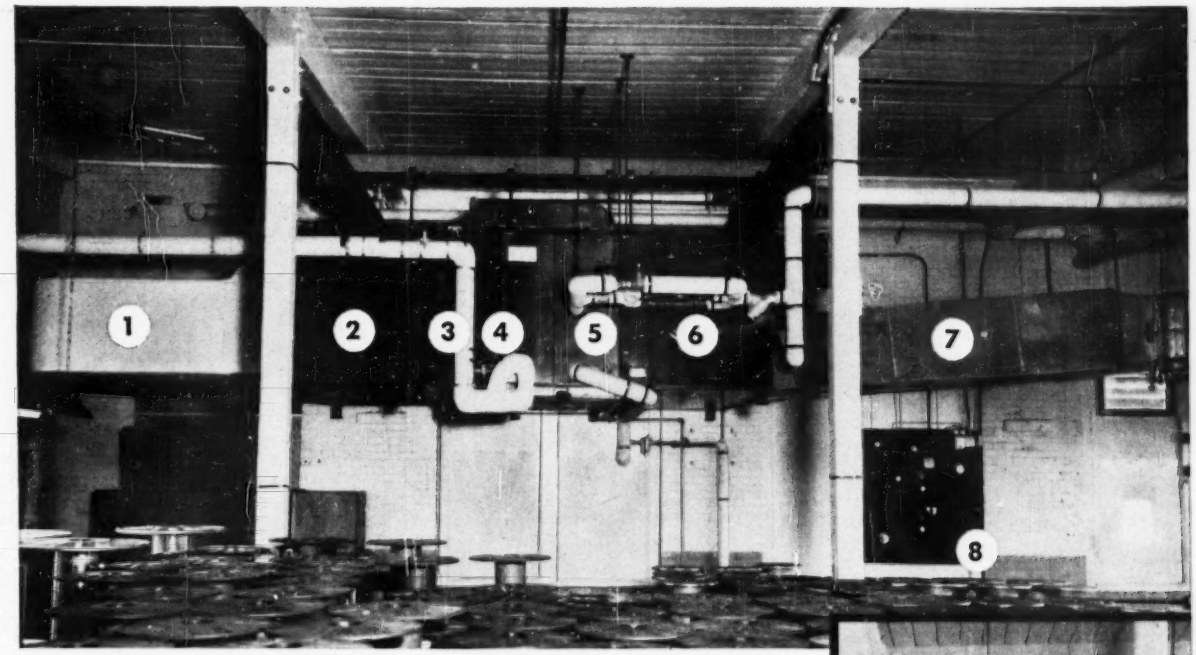
► Smith Publishing Company learned about that loss years ago; now the editors and business managers of all seven Smith publications are housed in offices without windows.

► Remember we told you that the government was bringing out a book that simplifies government specifications. The simplification book has been in the works now for almost a year—should be ready soon. Next on the agenda—an interpretation of the simplification.

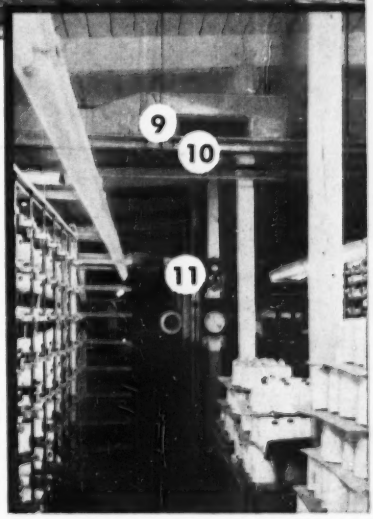
► A boon to executives who must repeat their messages to supervisors every day is the tiny box that talks automatically whenever a human being walks by it. Imagine the wear and tear saved on vocal cords by having it set to say, "Get your costs down or I'm promoting the sweeper to your job," everytime the department head passes by. Or, the little lady on the receptionist desk would be relieved if the box at the door chanted to a salesman, "Mr. Jones hasn't finished the morning paper yet and won't be able to see you for two hours."

► Of course, when Mr. Jones gets out of a job and beats his way to the salesman's office for aid in locating a new position, Mr. Salesman could retaliate by having his box set to say, "Sorry, Mr. Jones, we sell whichits with countersunk davits; this ain't an employment agency."

► It's all in the point of view. For our Yankee friends we recommend reading that unbiased and unprejudiced book entitled "The War



Amco Unit Dry-Duct System installed at Raytric Manufacturing Company, Bristol, Conn. Shown here are (1) fresh air inlet from outdoors; (2) plenum chamber, showing recirculated air louvers underneath; (3) air filter; (4) heating coils; (5) cooling coils; (6) fan; (7) air duct; (8) control panel; (9) outlet in air duct; (10) atomizer; (11) humidity control



Floor Area Limited?

This compact AMCO Unit Dry-Duct System may be your answer

An Amco Unit Dry-Duct System is composed of a self-contained air conditioning unit, distribution ducts and room atomizers. The unit itself is compact and can be installed overhead, out of the way, where it will not take up valuable mill floor space.

Here's how it operates. Automatically operated louvers introduce into the unit fresh air and recirculated air in proper proportions. The air is filtered, if desired, and then heated as required. This "dry" air is distributed to the working area through ducts. Humidification is provided by room atomizers located in front of each air duct outlet. Spent air and heat is exhausted automatically through vent louvers.

Amco Unit Dry-Duct Systems operate with evaporative cooling *only*, or with cooling coils as in the featured installation at Raytric Manufacturing Company.

The Unit Dry-Duct System is but one of the many types of air conditioning systems which Amco manufactures, engineers and installs in textile mills. Amco is in the unique position of being able to give you the widest possible choice between humidification, evaporative cooling (central station, dry-duct, or ductless type) or refrigeration, alone or in combination. Call an Amco engineer. You can rely on him to give you advice on the system best suited to your needs.

AMCO

AIR CONDITIONING SYSTEMS since 1888

Humidification • Evaporative Cooling (Ductless, Dry-Duct or Central Station) • Refrigeration

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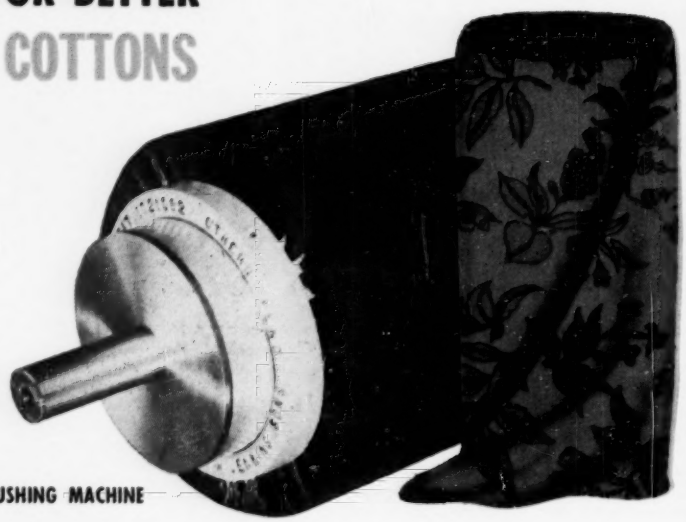
JENKINS' METLKOR®
BETTER BRUSHES FOR BETTER COTTONS



BRUSHING MACHINE

The widening uses and demands for cotton over past decades has created a number of new problems in production and finishing. M. W. Jenkins' Sons has designed and developed a special line of brushes to solve these problems. The results of this experience, research and development, in cooperation with leading textile mills and machinery manufacturers are available today in the highly efficient patented Jenkins' METLKOR brush.

This brush, with a permanent metal core, can be set with any bristle and can be rebristled when worn. Bound in place with corrosion-resistant metal and sealed in with solvent-proof plastic cement, the Jenkins' METLKOR brush is moisture-proof, acid- and alkali-resistant, will not sag, split or get out of alignment, is true balanced.

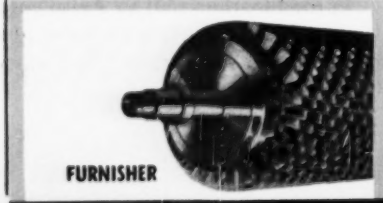
METLKOR brushes outlast other kinds of brushes and, in terms of service, are the most economical.

Whether you have a standard or special brush problem, Jenkins will manufacture to your specifications and needs, the right brush for the right job.

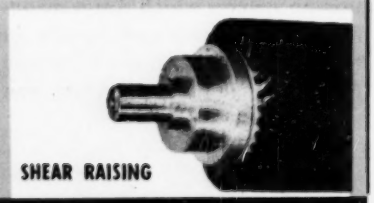
LIFEWOOD® *for wood core brushes and lags.*

OTHER METLKOR BRUSHES FOR COTTONS:

CARDING • SINGEING • BRUSHING PRIOR TO PRINTING • PRINTING BLANKET SCRUBBER, WASHER AND DRIER • BACK GRAY SCRUBBER • SOAPING • FURNISHER BRUSH CLEANING



FURNISHER



SHEAR RAISING

M. W. JENKINS' SONS, INC.

Over Three-Quarters Century of Pioneering Brushes for Industry.

Cedar Grove, Essex County, New Jersey

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Shorts and Remnants

Between the States from the Southern Viewpoint." Reminds us of the lady with the hourglass figure, but the sand has run to the bottom.

► The use of the word "if" in a letter cut us to the quick. A fellow writes that "try as I might, I cannot help being impressed by the chart [showing TI circulation coverage of the industry] . . . *if* TEXTILE INDUSTRIES covers 99.9% of the spindles in America then I would say that this is phenomenal . . . you will note my use of the word 'if,' but even if you cover slightly less than 99.9% of the spindles I would still say that it is phenomenal."

► How could anyone doubt Ole S&R? But who is selling whom? For our correspondent goes on to say, "I know you understand that we here have our fingers on the very heartthrob of each of these spindles . . . it would not be inappropriate for you to show more respect."

► While we are pausing with respect, and just to set the record straight, TI has executive readership in mills with 99.9% of the spindles, 99.7% of the looms, 98% of the knitting machines, 93% of the mills with dye-bleach-finish departments (or separate units), and 100% of the synthetic fiber manufacturing plants. TI not only covers Dixie like the dew, but New England like the smog, and the rest of the textile industry like nobody's business. And since we're getting commercial, TI is a member of ABC, CCA, NBP, STA, TOE, AATCC, and the Williams aftershave club.

► **Strictly Textile Intelligence:** Scientists have developed a coughing machine to help animals dislodge pins and other foreign objects that are swallowed.

Textile mills will modernize more in 1954 than they did in 1953.

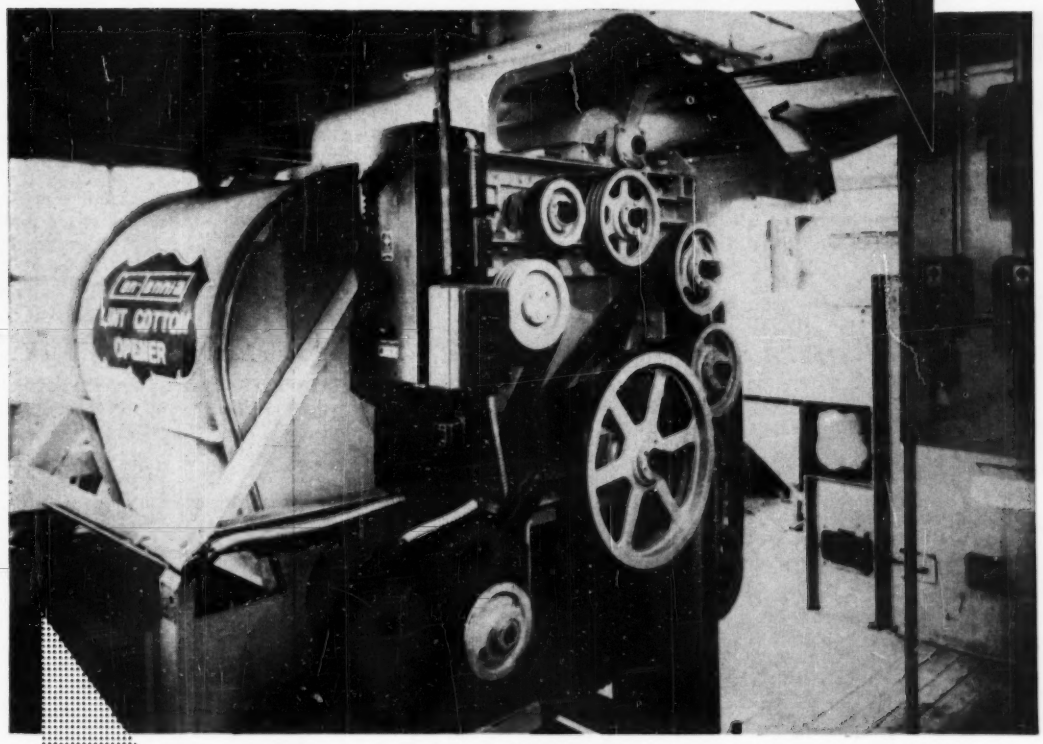
In many parts of Tibet foremen are regarded so highly that they are exempt from paying taxes.

Farsighted mill men already are studying the provisions of the Flammable Fabrics Act, effective next June 30.

Factors that lower your safety record are fear, worry, unrest, illness, boredom, mental fatigue, anger, irritability, and oil spots on the floor.

An executive is one who, having no

CEN-TENNIAL IN ACTION AT WEST BOYLSTON...



CEN-TENNIAL TEXTILE FIBER OPENER!

West Boylston Manufacturing Company, Montgomery, Alabama, manufacturers of quality yarns, is another mill which has installed CEN-TENNIAL TEXTILE FIBER OPENERS.

Always an organization with an eye toward more efficient operation, the management at West Boylston installed CEN-TENNIAL OPENERS as a means of materially reducing fiber waste and improving quality of yarn.

West Boylston has equipped all of their opening lines with the CEN-TENNIAL OPENER as a result of the efficiency of the initial installation.

The CEN-TENNIAL OPENER can save waste and save dollars for you, too, no matter what system your mill is running. It opens, cleans and blends cotton, wool and synthetics. Inquire for further information today, using the postage-paid reply card on page 184.

TEXTILE MACHINERY AMERICAN EXHIBITION ASSOCIATION

CEN-TENNIAL COTTON GIN COMPANY

Columbus, Georgia

For Easiest Pipe Threading ...it's a "504"

RIDGID

1 Set of Dies Threads 1" to 2" Pipe

- Instant change to 1", 1¼", 1½" or 2" pipe regardless of position of quick-opening lever.
- Wide open easy-to-read size bar . . . adjustable to over and undersize threads.
- Quick-opening lever retracts dies instantly without stopping power drive—no slow backing off.
- 4-jaw workholder centers pipe for accurate threading—no lead screw to jam.

For unmatched easy, fast, clean threading with your power drive, buy precision-made RIDGID 504 at your Supply House.

THE RIDGE TOOL COMPANY • ELYRIA, OHIO

RIDGID
Work-Saver Pipe Tools

Shorts and Remnants

particular or definable skill at any given task, is delegated the responsibility for long-range planning and developing broad company policy.

If you are worried about being in the red now, remember that the fellow who is in the black now worried earlier.

► Normally we don't make resolutions for the New Year; if we make none we break none. But we are going on record this time: To be sweet and kind and gentle to all TI advertisers and subscribers; to send all our excess business to our competitors; we'll even have a word of sweetness for those misguided souls who don't read TI (if any) and for those erring suppliers who don't advertise in TI (there are a couple) and thereby keep their wares imprisoned within their own storerooms.

► 1954 is a good year. It's there for us to do with as we may. It will be just what we make it. Bless you-all. And Keep Your Eye on TI.

Ready Reference

" . . . would like to obtain two copies of the 'Ready Reference Chart for Continuous Dyeing Process' as it appeared in the March 1953 issue . . . would it be possible to obtain a quantity of the printed charts . . . ?"

DAVID KAYE
Transocean Commerce, Inc.
New York

► Reprints were not made. Permission given to reproduce copies.

Interference in German

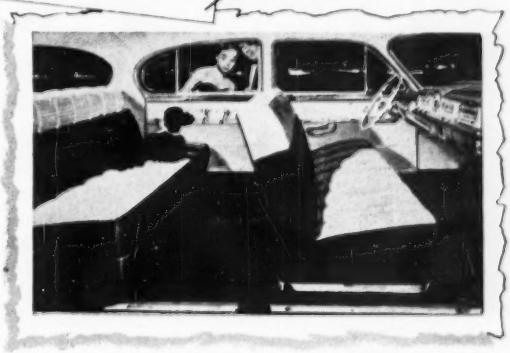
" . . . read with great interest . . . . 'Machine Interference' . . . . believe article would also be of interest to readers of 'Textile-Praxis' . . . . give

When DODGE announces "Matchless Elegance"

...this means JACQUARD FABRICS woven on C&K Machines

For '54, DODGE announces "Elegance in Action." And to attain this elegance *inside* their brilliant new cars, DODGE gives the motoring public the unprecedented luxury of *Jacquard* upholstery Fabrics. Read what DODGE says about these fabrics in their current announcements in national magazines and newspapers, examples of which are shown here.

The distinctive advantage of Jacquard Fabrics is their range of "Artistry Unlimited"... in upholsteries, draperies, bedspreads, blankets, table damasks, towels, dress goods, linings, tie silks, etc. This is the *extra merchandising advantage* enjoyed by mills whose looms are equipped with modern, high-speed C&K Jacquards. These luxury fabrics are rising to new levels of popularity. So see C&K today about the right Jacquards for *your* looms.



ELEGANT JACQUARD FABRICS

loomed in the manner of the most exquisite tapestries, create a new sense of gracious living *inside* the new DODGE.

(So say the builders of these fine cars. And C&K says: "See the '54 DODGE... see what Jacquard Elegance is really like.")

CROMPTON & KNOWLES JACQUARD & SUPPLY CO., PAWTUCKET, R. I.

Division of

CROMPTON & KNOWLES LOOM WORKS

WORCESTER 1, MASSACHUSETTS, U. S. A.

PHILADELPHIA, PA. • CHARLOTTE, N. C. • ALLENTOWN, PA.

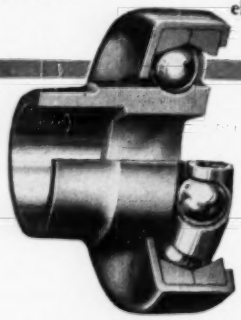
This "Invisible Trademark" Stands Back of the Trademarks of the World's Finest Fabrics... which are **WOVEN** Fabrics.

Important low-friction bearing development for conveyor rolls

NOTE THE DIFFERENCE

CONVENTIONAL TYPE BALL BEARING. Arrows in this illustration indicate the unavoidable friction when the balls are in contact with each other.

LOGAN X-SERIES BALL BEARING. Balls are caged in a steel container. Binding and friction caused by balls contacting each other is eliminated.



X-Series Bearing Assembly

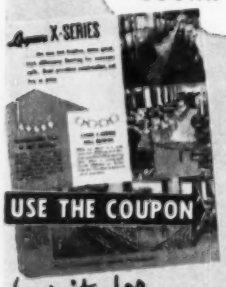
For new installations, and also interchangeable for replacement in existing Logan Conveyors.

Logan X-SERIES

Available at about the same price as ordinary conveyor roll bearings. Note: 33% less grade required on gravity lines. Get the details: just mail the coupon below in your business envelope. No obligation.

LOGAN CONVEYORS

LOGAN CO., 206 CABEL ST., LOUISVILLE, KY.



Write for literature today!

LOGAN CO., 206 CABEL ST., LOUISVILLE, KY.

Send literature on the new LOGAN X-Series Bearings.

Mr._____

Firm_____

Address_____

(There is no obligation)

Shorts and Remnants

me permission to translate this article in the German language. . . "

EDITOR-in-CHIEF
"Textil Praxis"
Heidelberg, Germany

► Permission granted.

Price Quotation

" . . . will you please give us full particulars as well as the price on the Keller Machine Company's 'Universal Circular Knitter' as illustrated in your October issue. . . . "

Name Withheld

► Prices on special equipment cannot be quoted by TI. Inquiry passed along to manufacturer.

Unsolicited but not Unsung

" . . . as a subscriber to your monthly publication . . . . just want to tell you how much this book means to me. It is quite the best magazine of its kind that I have ever had the good fortune to run across, and in its pages I find information which is most helpful to the superintendent and the foremen, as well as the manufacturer . . . . thank you for the privilege of reading this interesting publication. . . . "

JOSEPH A. CONRAD
President and Treas.
Union Dye & Finishing Works, Inc.
Union, S. C.

► Thank you, Mr. Conrad.

Useful in England

" . . . particularly interested in the article 'Training Seamer Operators' by Mr. Sam Boyer . . . . we have been training operators on most jobs connected with the hosiery industry during the last four years, and seaming has perhaps been our greatest problem . . . . we find that his article is of some considerable benefit. It is encouraging to note that training in the United States is having all its due care and attention, and that individual companies' training methods are by no means locked away in their 'Secret File.' "

P. R. LAWRIE
H. T. H. Peck, Ltd.
West Bridge,
Leicester, England

► American mill men learned long ago that when they lock the door, they don't just lock the other fellow out—they lock themselves in. Some American mill executives still need convincing; those who think they have secrets behind closed doors, who

Confidence...

SINCE 1831, Whitin has been a major supplier of machinery for the textile industry, building a relationship based on confidence . . . confidence on Whitin's part, in the strength and growth of the industry . . . confidence on industry's part, that from Whitin it could expect leadership and the best in machinery for practically every fiber that man makes into yarn.

Moving forward with this same confidence, Whitin is developing several new machine models and important design improvements, to serve the textile industry and advance its technology.

In their great and expanding role as producers of one of mankind's basic needs, every mill in the textile industry can still look to Whitin, as they have for 120 years, for modern, efficient, profit-making machinery.

Whitin

»» Since 1831 - a great name on textile machinery ««

MANUFACTURERS OF MACHINERY FOR: OPENING • PICKING
CARDING • COMBING • DRAWING • ROVING • SPINNING
TWISTING • WINDING, AND FOR MANY OTHER PROCESSES

WHITIN MACHINE WORKS · WHITINSVILLE, MASS

CHARLOTTE, N.C. • ATLANTA, GA. • SPARTANBURG, S.C. • DEXTER, ME.

Highest quality yarn costs less with

DAYCO Cots and Long

Costs go down and performance goes up from the moment you equip your frames with NEW Dayco EW-465 Cots. It's the amazing exclusive ingredient, Ibrocol, added to the synthetic rubber blend in these NEW Dayco Cots that accounts for this much-improved efficiency.

Ibrocol's chemical and mechanical action gives these cots just the right coefficient of friction needed to combat eyebrowing. With new Dayco EW-465 Cots, only the short staple fibres are removed from the yarn and are transferred well back on the clearer board away from the eyebrowing position. This means less eyebrowing and superior yarn quality for you on every frame equipped with Dayco EW-465 Cots. Equip your frames today!

Important savings in time and labor are yours, too, because reduced eyebrowing means less waste and fewer cleanings of the clearer board. Cot costs are lowered because Ibrocol retards slicking and glazing, therefore, fewer buffings are required. In addition, Daycos give you longer service life for they do not pit, groove, or develop flat spots.

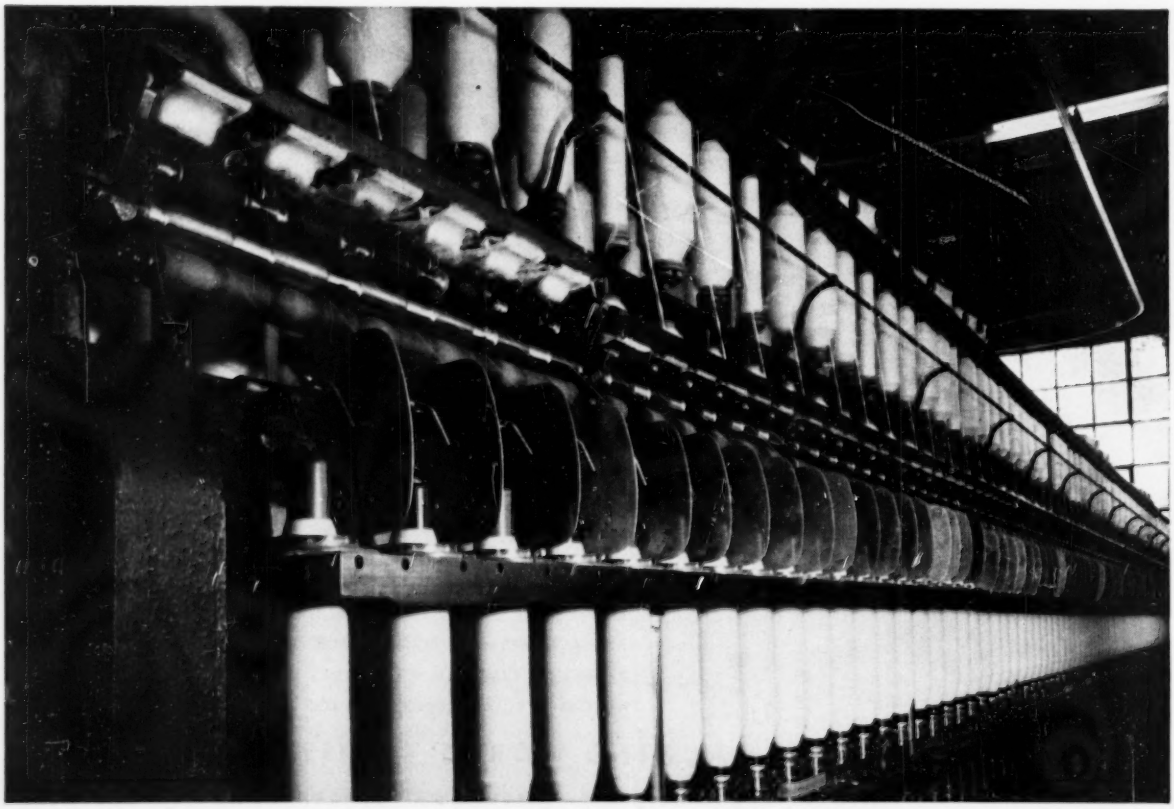
So for trouble-free spinning of higher quality yarn—natural or synthetic—convert your mill to Dayco IBROCOL Cots. For complete details see your nearest Dayton representative or mail coupon on the opposite page.

Check these Dayco Features against any other Cot

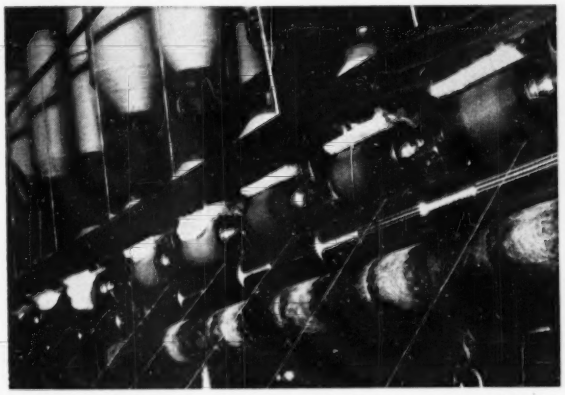
DAYCO COTS

- Successfully combat eyebrowing
- Create fewer lap ups and ends down
- Require fewer buffings
- Don't groove, pit or develop flat spots
- Unaffected by moisture or temperature changes
- Need fewer clearer board cleanings
- Draft better quality yarn
- Lower overall cot costs

New DAYCO Cot EW-465 combats eyebrowing, increases yarn quality



Draft Aprons



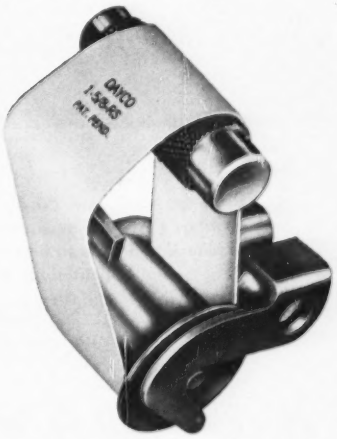
Note complete lack of eyebrowing on Dayco cots at right of frame as against ordinary cots at left. All cots ran same length of time.

Clearer board used with Dayco EW-465 Cots after normal run. Waste is well back under the clearer board away from eyebrowing position.

DAYCO Long Draft Aprons improve yarn quality, save time and money

Get up to 10% more uniformity in your yarn with Dayco Aprons that give better fibre control in the drafting area. Precision engineered to close tolerances, these single and double long-wearing aprons have a constant drafting ability that never varies . . . assures greater yarn uniformity.

Since Daycos never stretch or take a permanent set, you'll get faster starts after week-end shutdowns. That means savings for you in time, money and labor — plus increased uniformity in Dayco drafted yarn. Mail the coupon below for complete details.



© D.R. 1953

Dayton Rubber
Since 1905

Textile Products for Better Spinning and Weaving

Dayton Rubber Company, Textile Division
Woodside Bldg., Greenville, S. C.

Dayton Rubber Company, Textile Division, Dept. 361
Woodside Building, Greenville, S. C.

Tell me more about how I can get higher quality yarn at lower cost.

☐ Send literature on Dayco Cots and Long Draft Aprons

☐ Have your representative call

*Name*_____

*Firm*_____

*Address*_____

*City*_____ *Zone*____ *State*_____

New TOLEDO INDUSTRIAL LINE

These great new Toledos set new standards of fine performance with new clean-line design in handsome gray finish . . . double-pendulum mechanism in one-piece sector design . . . dial can be installed to face any of eight directions; also with full 360° swivel dial.

44 WAYS BETTER

New features in *every* model to serve you better—now added to world-famous accuracy and dependability of Toledo Scales! See them now—complete range of types and capacities to help you *control costs!* Whether it's weighing, checking, testing, counting, batching, force-measuring and other operations . . . there's a new Toledo to do the job with high *accuracy, speed* and *dependability.* Write for up-to-date scale information in new condensed catalog No. 2001. Toledo Scale Co., Toledo 1, Ohio.

TOLEDO®

Today more than ever

HEADQUARTERS FOR SCALES

SALES AND SERVICE OFFICES IN 200 CITIES

Shorts and Remnants

never allow visitors, or visit themselves, would be surprised to find how far they are behind some other mills in the industry.

Brother, Can You Spare a Book?

" . . . the war have concluded a truce . . . . will visit soon a peace on our country . . . . are serving to the reconstruction of our mill plant that have almost destroyed by war . . . . a matter is enormous hard blow all Korean engineers have lost almost books conference and other datas owing to the war . . . . please give many advice to us the textile industries in Korea. . . . "

JI HYUNG WOO
Chief Engineer
Hanyoung Spinning Co., Ltd.
210 Dangsandong Yongdongpo
Seoul, Korea

► To those of us who have every type of reference book and numerous technical periodicals, it is difficult to appreciate the position of engineers and textile men who have lost valuable technical aids. Should you have books that you no longer need, or duplicates of books and reference data, this Korean engineer would find them useful. Please send direct to above address.

"The Supervisor" for Supervisors

" . . . please send booklet containing all eleven of Mr. Parks' discussions. . . "

R. M. THOMPSON, JR.
Asst. Plant Engineer
The Apponaug (R. I.) Co.

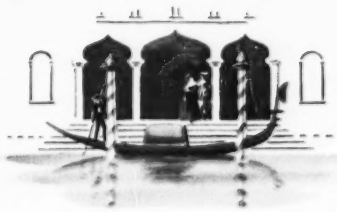
► The series on "The Supervisor and His Responsibilities" which appeared in TI is available in booklet form, in conjunction with a subscription to the magazine.

"Weaving Filament Synthetics"

" . . . kindly send us four copies of the reprint of the five articles on 'Weaving Filament Synthetics' by George Williams. . . . "

ROBERT A. FORTINSKY
Fortune Fabrics, Inc.
Swoyerville, Penna.

" . . . we are interested in obtaining copies of the five articles we saw in your magazine which presented the causes and remedies for filling and warp defects in weaving fine denier filament synthetic yarns. It is our



YARN DYED FABRICS... the Royalty of Textiles

In past centuries, yarn dyed fabrics like that shown here were for the wealthy alone. Modern mass production methods bring them in reach of every pocketbook—*still* "the royalty of textiles".

As the world's largest package yarn dyers, Franklin Process has capacity to supply the best colors for your purpose—in any quantity, at competitive prices and in the shortest possible time. Ask our nearest plant for prices and delivery.

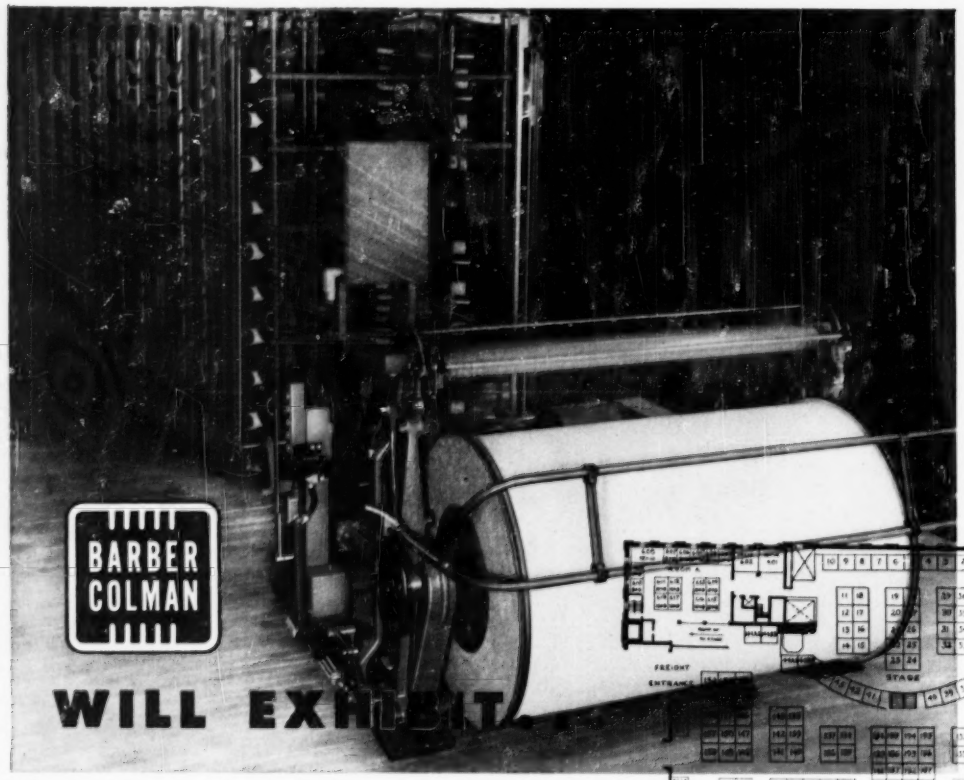
Franklin Process

COTTON YARN MERCHANTS AND LARGEST PACKAGE DYERS IN THE WORLD

New York
Representatives
40 Worth Street

Providence
Philadelphia
Greenville
Chattanooga
Fingerville, S. C.

17th Century Italian Dress Fabric.
Museum of Art, R. I. School of Design.

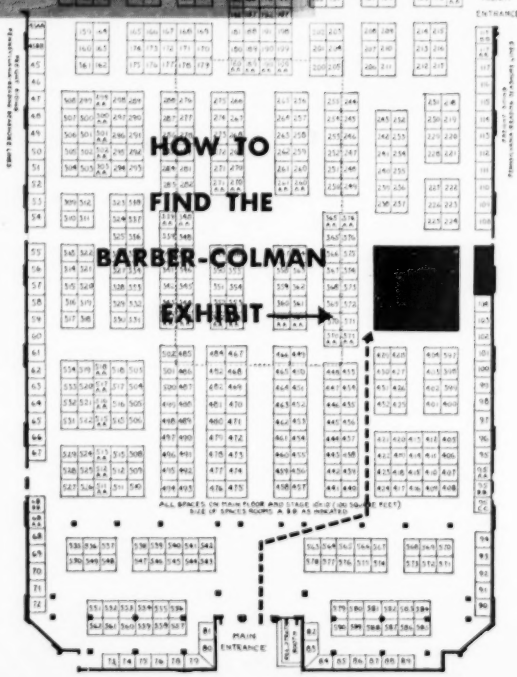


TEXTILE MACHINERY
AMERICAN ASSOCIATION
ATLANTIC CITY
APRIL 26-30
1954
EXHIBITION

THIS NEW SUPER-SPEED WARPER AND A CREEL

Warper is capable of running larger beams, up to 40 inches head diameter. Creel (not shown here) is designed to handle 6-pound "D" type cheeses. Both units are modernized versions of successful Barber-Colman equipment — now redesigned to provide greater production at lower cost. See this warper and creel *in action* . . .

AT THE **1954** AMERICAN
TEXTILE MACHINERY EXHIBITION
ATLANTIC CITY
APRIL 26-30, 1954



AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • WARP DRAWING MACHINES

BARBER-COLMAN COMPANY

ROCKFORD • ILLINOIS • U. S. A.

FRAMINGHAM, MASS., U. S. A. GREENVILLE, S. C., U.S.A. MANCHESTER, ENGLAND MUNICH, GERMANY

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Batliboi & Company
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Bombay, India

MEXICO
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Isabel la Catolica 45-913
Apartado 7348
Mexico D.F., Mexico

BRAZIL
Quimanil S.A. Anilinas
e Representacoes
Rua Gliceria 537/547
Caixa 5658 e 3431
Sao Paulo, Brazil

JAPAN
Nanko Bussan K. K.
Sampin Building
Kitakyutaro-machi 3-chome
Higashi-ku, Osaka, Japan

MIDDLE EAST
Arlind Corporation
65 Bedford Street
Stamford, Connecticut

HOW TO INCREASE THE PRODUCTION...

In Your WINDING ROOM

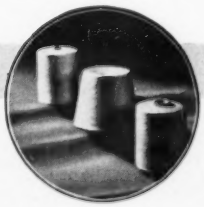
Have you changed to large packages in your spinning room, or are you planning to? If so, consider the possibility of increasing production in your winding room without placing an undue burden on the operators. Here's how it's done.

Suppose you have a 100 spindle Foster Model 102 (50 spindles to a side). Just add a section of 20 spindles (10 spindles to a side) and one girl can tend 60 spindles on one side, supplied by large bobbins, just as easily as she can tend 50 spindles on one side, supplied by small bobbins. Thus you increase your output without imposing on the operator and the investment is considerably less than if you installed separate new winders.

We have used the Foster Model 102 as an example, but the same principle applies to the Foster Model 75 or any other Foster winder.

Of course there is a maximum number of spindles per machine in each case, which varies with the traverse of the package.

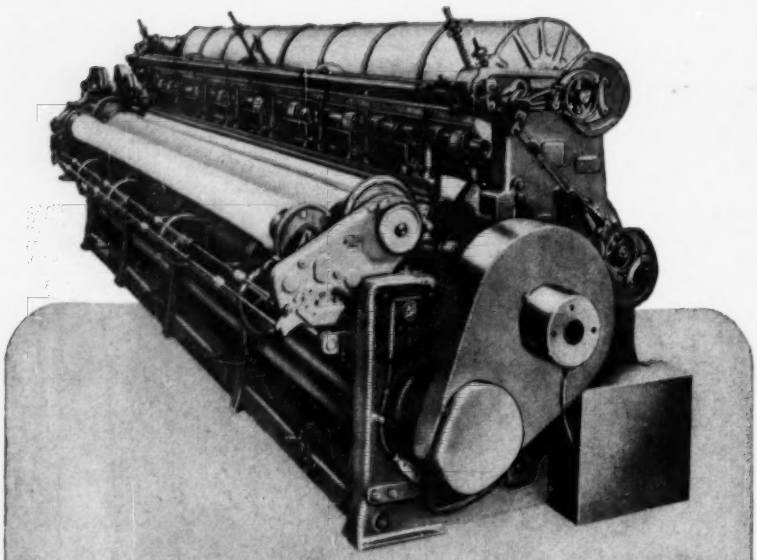
If you wish to increase production in your winding room, consult with us to find out if it's practicable.



FOSTER MACHINE COMPANY • Westfield, Mass., U.S.A.

Southern office—Johnston Bldg., Charlotte, N. C. Canadian Representative—Ross Whitehead and Company Limited, 1475 Mountain St., Montreal, Quebec and 35-37 King St., W., Toronto. European Representative—Muschamp Engineers Limited, Ashton-Under-Lyne, England.

TOP PERFORMANCE *with* BIJUR



The outstanding Reiner RT-6 Tricot Knitting Machine features lighter knitting elements, smoother motions, improved guide bar action, and higher speeds for maximum production.

Reiner standardizes on Bijur Automatic Lubrication for the correct oiling of 120 bearings on the RT-6 to assure smooth, high-speed operation, eliminate down time for oiling, and cut maintenance costs to the bone.

Specify Bijur on all new equipment you buy and gain *higher production, longer machine life,* and *lower maintenance.* A Bijur engineer can solve your lubricating problems on all machines now in production or in the planning stage.

300 N-7

BIJUR

LUBRICATING CORPORATION

Rochelle Park • New Jersey

Pioneers in Automatic Lubrication

Shorts and Remnants

understanding that these articles are available in booklet form. We feel that these articles are of lasting worth and would also lend themselves well as a reference. . . . "

E. BERLINER
Laboratory Director
Klopman Mills, Inc.
Asheboro (N. C.) Div.

" . . . please send us two reprints of the five articles presenting the causes and remedies for filling and warp defects in weaving fine denier filament synthetic yarns. . . . "

C. E. MUTCHLER, JR.
Catasauqua (Pa.) Weaving Co.

" . . . please send us a copy in booklet form presenting the causes and remedies for filling and warp defects in weaving fine denier filament synthetic yarns. . . . "

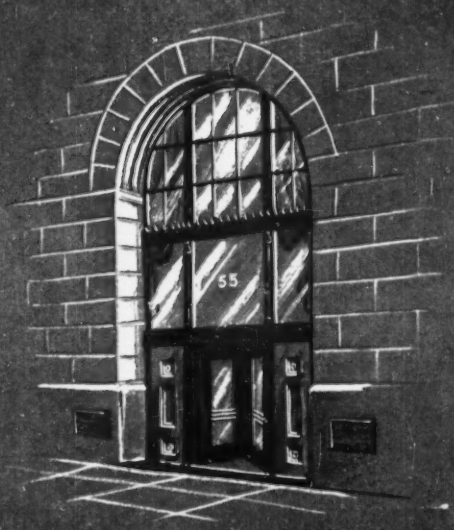
CLAUDE A. CROCKER
J. P. Stevens & Co., Inc.
Slater Manufacturing Co. Div.
Slater, S. C.

► The five articles by George Williams on "Weaving Filament Synthetics" had emphasis on fine denier yarns and discussed the causes and remedies of various defects; they appeared in TEXTILE INDUSTRIES for May, June, July, August, and October 1953. The series proved popular, and a 32-page booklet containing all five articles has been prepared. It is available either as an outright purchase for 75¢ or may be secured in conjunction with a new or renewal or extended subscription.

Other requests, typical of the four quoted above, came immediately from such mills as:

Celanese Corp. of America, Pepperell Manufacturing Co., Textron Southern, B. Zusblat & Co., Groves Thread Co., Mohawk Carpet Mills, Dan River Mills, Texstyle Corp., Bates Manufacturing Co., Sherman Manufacturing Co., Burlington Mills Corp., Braunsberg Bros., Inc., Fitzgerald Mills Corp., Chopak-Kittenplan Corp.

J. P. Stevens & Co., Inc., Cia. Industrial de Atzcapotzalco, Duplan Dyeing Co., American Woolen Co., Inc., Cheraw Weaving Mill, Inc., Excelsior Mills, Pacific Mills (Worsted Division), Robbins Mills, Inc., and many others.



TEXTILE BANKING COMPANY

Inc.

Factoring Service

Puts your sales on a cash basis
Strengthens your cash position
Relieves you of credit losses

55 MADISON AVENUE • NEW YORK

ON A FIDELITY MULTI-DESIGN RIBBER

120 VERTICAL COLORS—5 HORIZONTAL COLORS

The Fidelity Multi-Design Ribber makes possible a wide range of plating designs and color combinations in True Ribbed Fabric—diameters up to seven inches.

Fidelity Machines are available in 10-step and 25-step types. For more information, write today for detailed literature on the Fidelity Multi-Design Ribbers.

When you are in the Philadelphia area, visit the new showroom at our plant—see The Multi-Design Ribber in operation.

Designers and Builders of Intricate, Automatic Precision Machines

FIDELITY MACHINE COMPANY, INC.

SINCE 1911

3908-18 FRANKFORD AVENUE, PHILADELPHIA 24, PA.

Personal NOTES

ABOUT MEN YOU KNOW

Donald Comer, chairman of the executive committee of Avondale Mills, was recently presented the Human Relations Award by the Society for the Advancement of Management. He was cited for achievement in the human relations policies which he introduced at Avondale.

Richard T. Kropf was recently elected to the board of directors of Belding Heminway Co., Inc. He has been with the firm since 1931.

D. H. Tyson, previously with Sylvania Electric Products, has joined Botany Mills, Inc., Passaic, N. J., as assistant treasurer and controller.

Russell West has been appointed boss dyer at the Barrymore Cloth Co., Toronto, Canada. He previously held the same position at American Woolen Co.'s Raleigh, N. C., plant.

Superintendent of Brinton Peterboro Carpet Co.'s woolen yarn mill in Lindsay, Ontario, Canada, is **Joseph Gore,** formerly quality control manager of Artex Woolen Mills, Hespeler, Ontario.

Warren Pearman, previously general overseer of the Clayton (N. C.) Spinning Co., has become night superintendent at the Borden Mfg. Co., Mills 1 and 2, Goldsboro, N. C.

Recent promotions at Callaway Mills are: **Austin G. Bledsoe,** second hand at Unity Spinning Plant No. 1; at the USEO Maintenance department, **Gordon J. Jacobs,** formerly chief electrician, now also supervisor of the service crews; **Joe J. Childs,** from overseer of the machine shop to overseer, shop and building maintenance; **T. C. Smith,** overseer, supply room; **Tom W. Hunter,** second hand, electrical department; **William L. Pruitt,** second hand, carpenter crew. At Valway plant, **Raymond E. Overcash** was made second hand in the dye house. New second hand in the HDV maintenance shop is **Richard H. Bassett.**

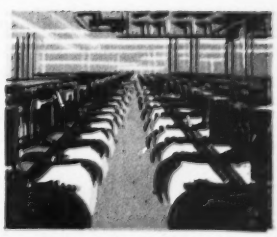
G. P. Barnwell, vice-president of Bibb Manufacturing Co., Macon, Ga., has been elected president of the Carded Yarn Association. Other officers are: first vice-president, **Karl**

For tractors and implements . . .

for cars, trucks and busses . . .

NEW HYATT BARREL BEARING!

You're looking at a cross section of industry's newest find—*the bearing that's built with barrel-shaped rollers!* Developed by Hyatt, the Barrel Bearing is of true dual-purpose design—it takes load from any direction. But more than that, the Barrel Bearing is self-aligning—and misalignment of supporting parts cannot cause excessive wear, as it does with ordinary bearings. Now in volume production, this new bearing is in the newest trucks and busses, in farm, textile and construction equipment, and in many types of oil field machinery. In fact, if you own a new car there's a good chance that Barrel Bearings are in the wheels and differential.



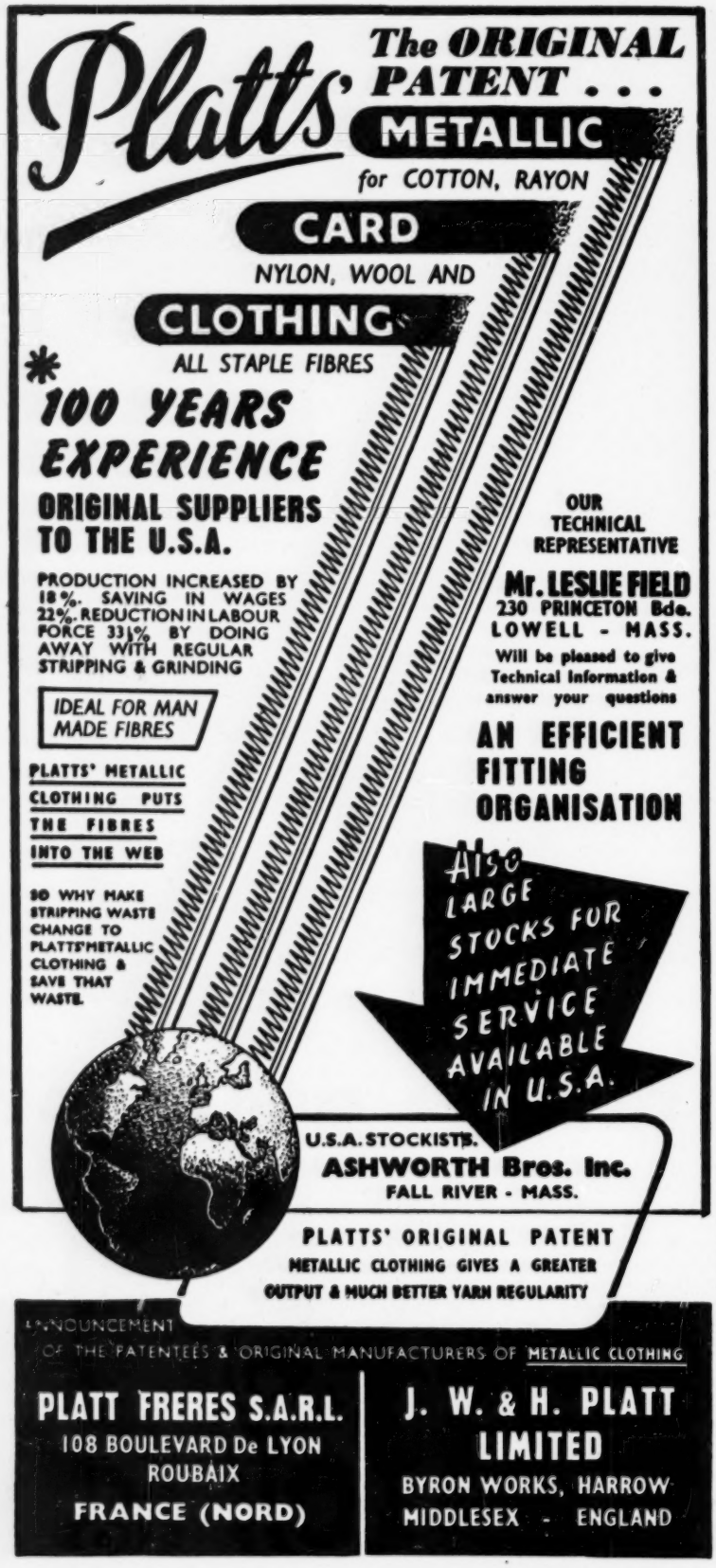
for the latest in modern, high-efficiency textile machinery.

HYATT

STRAIGHT BARREL TAPER

ROLLER BEARINGS

HYATT BEARINGS DIVISION • GENERAL MOTORS CORPORATION • HARRISON, N. J.


Platts
The ORIGINAL PATENT . . .
METALLIC
for COTTON, RAYON
CARD
NYLON, WOOL AND
CLOTHING
ALL STAPLE FIBRES
100 YEARS EXPERIENCE
ORIGINAL SUPPLIERS TO THE U.S.A.
PRODUCTION INCREASED BY 18%. SAVING IN WAGES 22%. REDUCTION IN LABOUR FORCE 33⅓% BY DOING AWAY WITH REGULAR STRIPPING & GRINDING
IDEAL FOR MAN MADE FIBRES
PLATTS' METALLIC CLOTHING PUTS THE FIBRES INTO THE WEB
SO WHY MAKE STRIPPING WASTE CHANGE TO PLATTS' METALLIC CLOTHING & SAVE THAT WASTE.
OUR TECHNICAL REPRESENTATIVE
Mr. LESLIE FIELD
230 PRINCETON Bde.
LOWELL - MASS.
Will be pleased to give Technical Information & answer your questions
AN EFFICIENT FITTING ORGANISATION
Also LARGE STOCKS FOR IMMEDIATE SERVICE AVAILABLE IN U.S.A.
U.S.A. STOCKISTS.
ASHWORTH Bros. Inc.
FALL RIVER - MASS.
PLATTS' ORIGINAL PATENT
METALLIC CLOTHING GIVES A GREATER OUTPUT & MUCH BETTER YARN REGULARITY
ANNOUNCEMENT
OF THE PATENTEES & ORIGINAL MANUFACTURERS OF METALLIC CLOTHING
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FRANCE (NORD)
J. W. & H. PLATT LIMITED
BYRON WORKS, HARROW
MIDDLESEX - ENGLAND

Personal NOTES
ABOUT MEN YOU KNOW

Bishopric, president of Spray (N. C.) Cotton Mills; second vice-president, **Frank Pate,** treasurer of Wehadkee Yarn Mills, West Point, Ga.; secretary and treasurer, **E. O. Fitzsimons** of Charlotte, N. C. New chairman of the dyed yarn division is **B. D. Banks,** treasurer of Grantville (Ga.) Mills.

James M. Elliott, president of Alexander Smith, Inc., was recently elected to the board of trustees of the Carpet Institute.

Chadbourn Hosiery Mills, Inc., Charlotte, N. C., has made **C. E. McCarthy** a vice-president and director. **William J. Leath,** vice-president, has been added to the board of directors.

William J. Heller has been promoted to overseer of weaving at the Crown Woolen Mills, Marcellus, N. Y. **George Ripley** is overseer of spinning, coming to Crown from Woolart Mills, Ludlow, Vt.

Promotions at Duplan of Canada, Ltd., Montmagny, include **C. Pollock,** formerly manager of the sportswear div., to general manager and **G. D. Morrell,** formerly controller, to secretary-treasurer. Mr. Morrell succeeds **D. M. Crawford,** resigned.

Randolph A. Walker has resigned, effective January 1, as president and general manager of Dorchester Fabrics, Inc., Summerville, S. C.

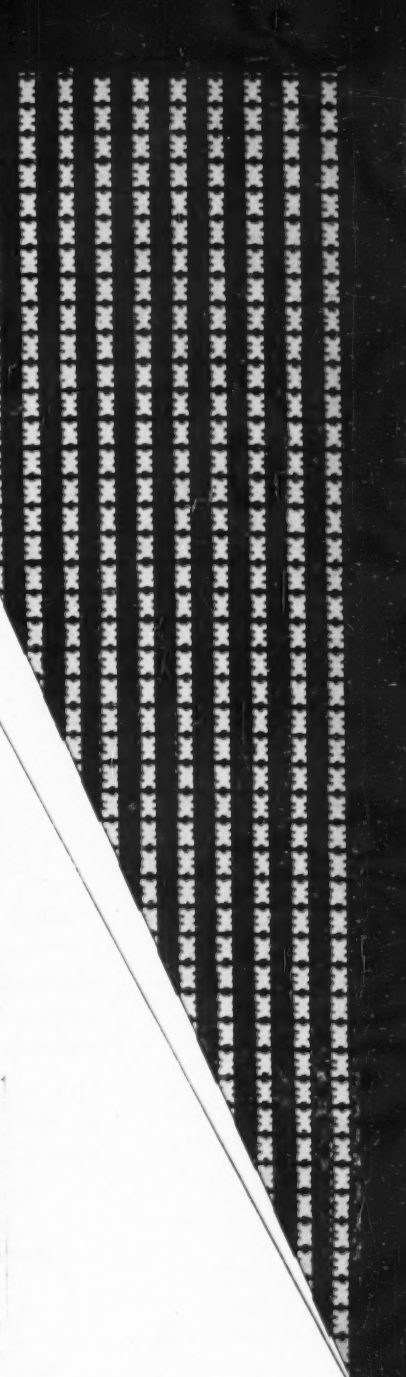
New president of the Durene Association is **W. H. McDonald** of Southern Mercerizing Co., Tryon, N. C. **Freeman R. Harris** of Standard-Coosa-Thatcher Co., Chattanooga, Tenn., is vice-president, and **Joseph P. Holt,** Aberfoyle Manufacturing Co., Philadelphia, Pa., is again treasurer.

Kurt Klemm is the new superintendent of Eaton Knitting Co., Ltd's full-fashioned knitting mill in Hamilton, Ont., Canada, having been previously connected with Monarch Knitting Co.

Dr. Frank T. deVyver, vice-president of Erwin Mills, Inc., was recently awarded one of the first alumni citations granted by Oberlin (Ohio) College, for service in various fields of human endeavor. **M. Ray Harden,** manager of the Stonewall, Miss., plant of Erwin Mills since 1948, has returned to Durham, N. C. He continues to serve the mills as

THE TRADE CALLED FOR:

Shrinkage control and crease resistance on a viscose-Orlon striped weave...*



The finisher delivered a perfect job, thanks to Sandoz Technical Service

Problem:

Finishes normally used to produce dimensional stability and crease resistance require high curing temperatures which tend to turn the new thermoplastic fibers yellow, hard, or brittle.

Solution:

Sandoz' new urea formaldehyde resin, FINISH EN, made it possible to work out the perfect formula for this fabric. The low temperature curing properties of FINISH EN enabled the finisher to cure the goods at 240-260° F. In this manner the white Orlon section of the fabric was preserved and, by combining CUPRO-FIX and FINISH EN, the dyed rayon possessed excellent color permanency. The fabric showed satisfactory shrinkage control and crease resistance and the hand was very attractive.

FINISH EN, in addition to viscose-Orlon blends, also offers great advantages for blends consisting of viscose and either Dacron* or Dynel, Acrilan® or any other combinations of these newer man-made fibers.

• • •

If you are faced with any problem involving these or other fabrics, Sandoz Technical Service may be able to help you solve it. Call your nearest Sandoz branch in Hudson, Mass.; Fairlawn, N. J.; Philadelphia; Charlotte; Cincinnati; Los Angeles; Montreal or Toronto. Or write to Sandoz Chemical Works, Inc., 61 Van Dam Street, New York 13, N.Y.

*Du Pont Trademark

SANDOZ

SANDOZ

THINKS AHEAD WITH TEXTILES

First in speed... First

The "Reading 100" Full-Fashioned Knitting Machine is designed and built for a speed of 100 courses per minute in regular mill operation.

Because the "Reading 100" is first in speed, it is first in production. Extra courses per minute, extra dozens — not just under experimental conditions, but in *your* mill.

When you put this high-speed, 30-section machine to work, these features will stand out:

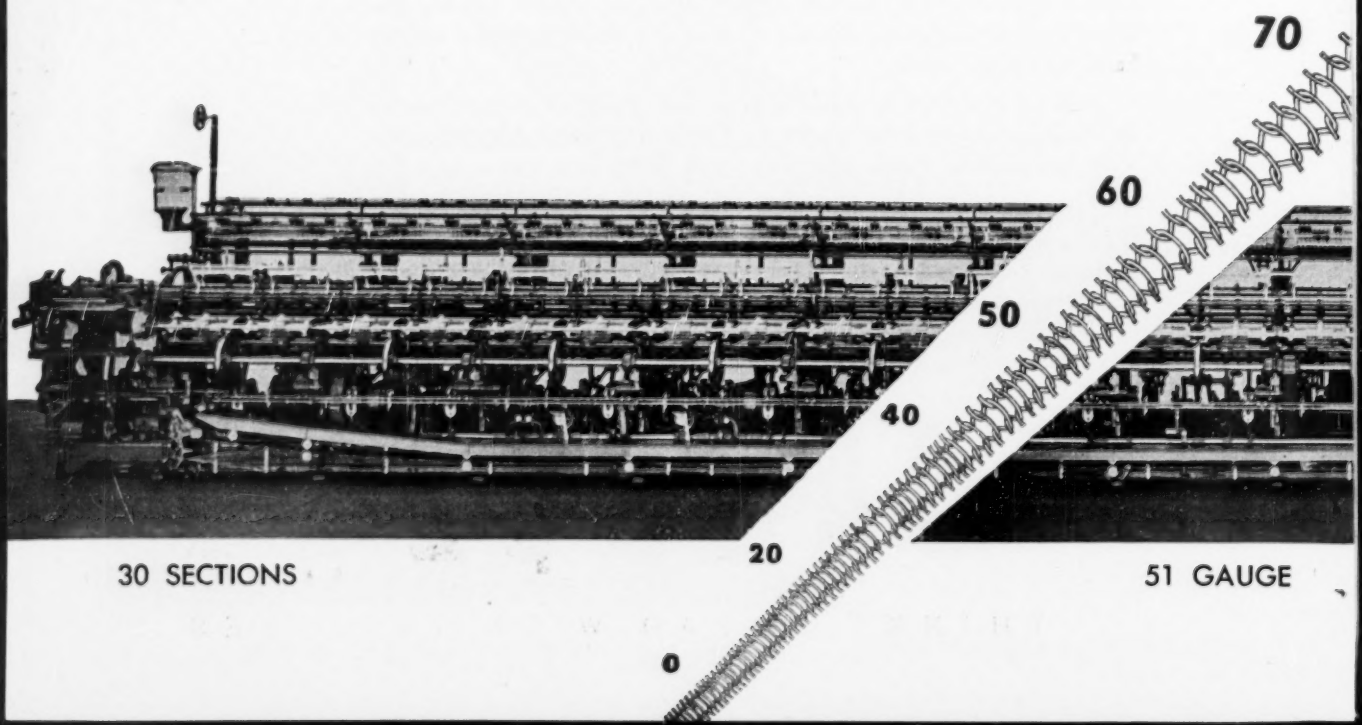
Smooth, effortless performance . . . The "Reading 100" is practically vibration-free because of increased balancing cam action. It's the first multiple section full-fashioned knitting machine built for this high speed operation.

High narrowing speed . . . End control with its rigid construction allows a narrowing speed of 75 courses per minute. The "Reading 100" narrows faster than the top operating speed of some machines now in use.

Simplicity of operation . . . All cam adjustments, except needle bar and balancing cams, are made at one point. Less time required for making or checking settings. Makes it easy to keep all settings synchronized.

With the new "Reading 100", the Automatic Speed Selector provides unlimited stations for making speed changes throughout the knitting of the blank. With a special hand-operated switch, a lower constant speed can be achieved for the production of samples, or breaking in new friction shoes without resetting the speed control chain.

The "Reading 100" will prove its worth to you — in the finest stocking fabrics at a speed never before achieved. Talk to the "Reading 100" representative or write us for full details.



in production

100

95

90

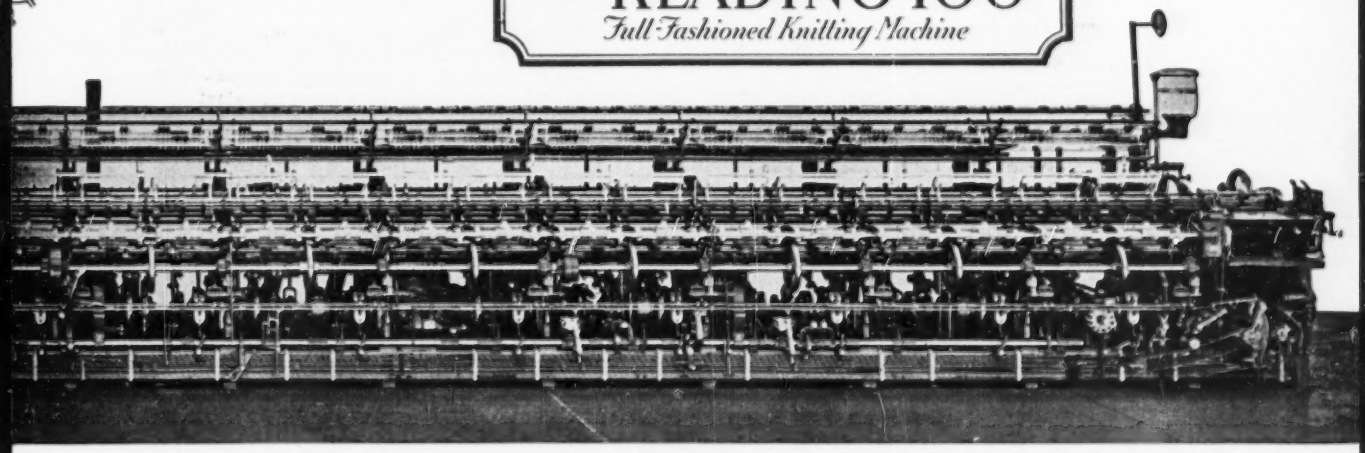
85

80

75

100 courses per minute

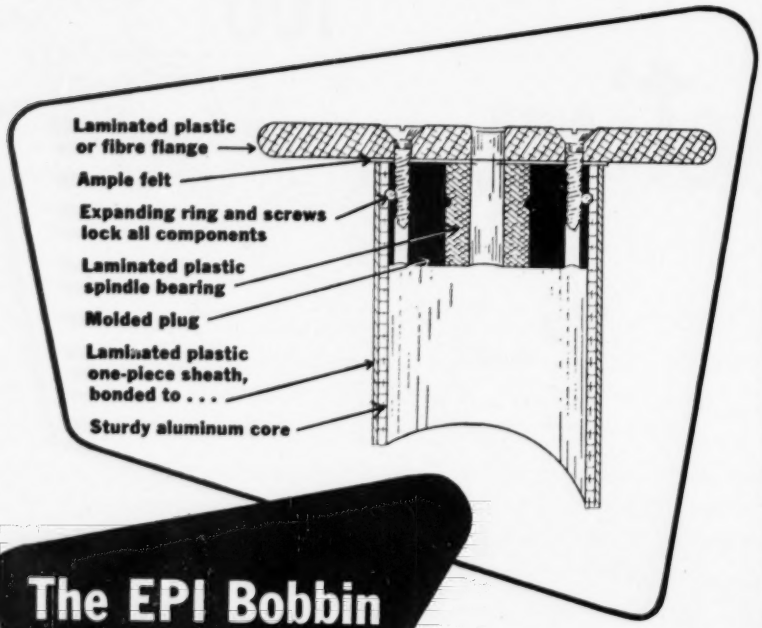
The "READING 100"
Full-Fashioned Knitting Machine



60 GAUGE

66 GAUGE

TEXTILE MACHINE WORKS
READING, PENNA., U. S. A.


Laminated plastic or fibre flange
Ample felt
Expanding ring and screws lock all components
Laminated plastic spindle bearing
Molded plug
Laminated plastic one-piece sheath, bonded to . . .
Sturdy aluminum core

The EPI Bobbin is Better Built

The EPI bobbin is built and assembled *from the spindle outward,* with every part machined concentric to the spindle. All parts are permanently locked together with our patented* expanding lock ring assembly. This makes the strongest bobbin you can use for nylon or other tenacious yarns.

Every EPI bobbin is dynamically balanced. Experience has shown that even minute variations in methods and materials used can show up in excessive spindle and machine wear, increased maintenance costs, higher power consumption, and poorer quality yarn. Dynamic balancing plus concentric construction make the EPI a smooth running bobbin.

It will pay you to write, wire, or call for full information on the EPI bobbin.

New England Representative: J. H. Windle, Jr.
231 S. Main St., Providence, R. I.

*U.S. Patent 2,625,343

ENGINEERED *Plastics*
INCORPORATED
Gibsonville, North Carolina

Personal NOTES ABOUT MEN YOU KNOW

consultant in various parts of the organization. **Claude W. Warren** recently was named assistant manager of the mills at Cooleemee, N. C.

Thomas M. Corcoran has retired as superintendent of Gera Mills, Inc., Passaic, N. J.

Newly promoted to overseer of dyeing at the Gloversville Knitting Mills, Gloversville, N. Y., is **Alexander Nicholson.** He was formerly with United Wool Piece Dyeing and Finishing Co., Passaic, N. J.

Ernest N. Chamberlain, treasurer, has also become vice-president of manufacturing at Goodall-Sanford, Inc., Sanford, Me. He succeeds C. A. Callahan, resigned. **Edward E. Burdett** is now manager of the firm's Mill G at Sanford.

The Granite State Textile Executives' Association has made **Ralph Dunford,** superintendent of Amoskeag Mills, Inc., president. Other officers elected are: first vice-president, **Earl Simmons** of the Baltic mill of American Woolen Co., Enfield, N. H.; second vice-president, **Robert Hinds,** Raylaine Worsted Mills, Manchester; secretary, **George Hudson,** Amoskeag Mills, Manchester; and treasurer, **Wilbert Schod,** Amoskeag-Lawrence Mill, Manchester.

George W. Minyard, overseer of finishing at Habersham Mills, Habersham, Ga., has retired, and **Ben H. Bulloch** has been named to fill this position.

General superintendent of the synthetics manufacturing of Hathaway Manufacturing Co., New Bedford, Mass., is **Alexander Stewart. Arthur T. Branigan** is superintendent of cotton manufacturing.

P. H. Hanes Knitting Co., Winston-Salem, N. C., has appointed **J. Duke Baldridge** personnel manager for the firm. Before assuming these duties, Mr. Baldridge was general superintendent of yarn manufacturing at the Hanes, N. C., plant.

John Peters, vice-president and general manager of Industrial Specialty Manufacturing Co., Magog, Quebec, has retired after 63 years in the Canadian primary textile industry.

The two new officers at the Lanett

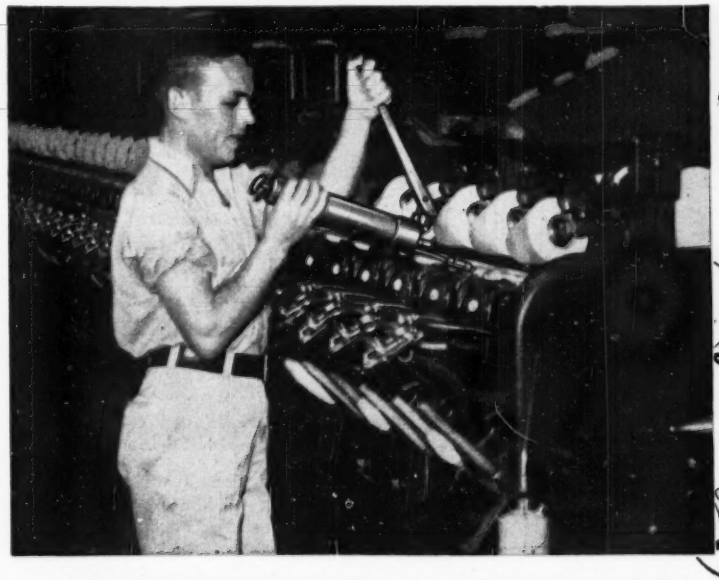
How to cut unit costs..and add to profits!

Time study proves Alemite hand gun loading methods save 3¾ hours per 100 pounds of lubricant used

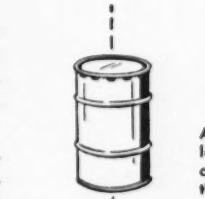
But, the 3¾-hours' saving is only the beginning! You also save on bearing replacements, costly repairs and downtime. Because only clean, fresh lubricant goes from drum to gun to bearing. Your machines can operate at peak efficiency—produce more per hour, more per dollar.

Alemite Hand Guns are equipped with a loader fitting which permits clean, quick mechanical refilling in a fraction of the time required for old-fashioned hand and paddle methods. The loader fitting is placed in the nozzle of an Alemite Loader Pump. Then—just 8 strokes of the pump refill a 1-lb. capacity gun . . . no mess, no waste!

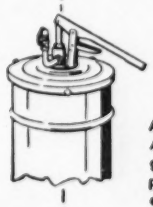
And, there is an Alemite Loader Pump to fit any standard lubricant container you normally use—stationary models for 100-lb. and 400-lb. drums; portable models for 25-lb. or 35-lb. pails. These pumps keep original containers sealed tightly—prevent contamination, help reduce fire hazards.



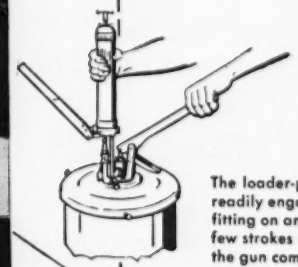
With Alemite Plan "A" Only Refinery Clean Lubricant Reaches Machines



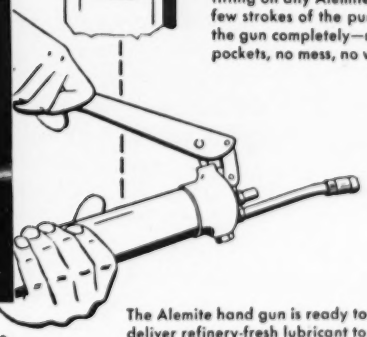
A drum of general purpose lubricant arrives in the oil room—clean, fresh from the refinery.



As soon as drum is opened, an Alemite Loader Pump for hand guns is inserted . . . completely re-sealing the lubricant against contamination.



The loader-pump nozzle readily engages the loader fitting on any Alemite gun. A few strokes of the pump fill the gun completely—no air pockets, no mess, no waste!



The Alemite hand gun is ready to deliver refinery-fresh lubricant to any machine—lubricant that has been kept free of dirt and abrasives all the way from barrel-to-bearing.

This combination of Alemite Hand Guns and Alemite Loader Pumps is known as Alemite Plan "A." It is one of five Alemite plans that your trained Alemite representative can show you. Ask him to tell you about the colorful, informative new sound-slide film, "No Margin for Error," which will help you and your men cut production costs. No obligation, of course!

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Ask Anyone in Industry

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Free! **New Booklet "5 Plans for Better Plant Lubrication"**

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Please send my FREE copy of
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Comer's 20th year serving the textile industry

Buying or selling textile machinery?

One call does it!

Whether you're looking for machinery, or whether you're anxious to turn some idle machinery into working capital, you'll get fast action through Comer Machinery Company, for Comer keeps up with who needs it, and who has it to sell!
For 20 years . . . contacts throughout the entire textile industry (here and abroad) have enabled Comer Machinery Company to serve as a clearing house for *both* buyer and seller. Buying or selling, a call to Comer Machinery Company *now* will bring gratifying results. A single piece, or complete mill properties bought and sold. Liquidations. Appraisals. Cable address: COMACH

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Our bulletin describes machinery currently available. Phone or write to be put on the mailing list.

Personal NOTES ABOUT MEN YOU KNOW

Bleachery & Dye Works are **John A. Simmons, Jr.,** treasurer, and **James L. Young,** assistant treasurer.

Basil G. Skalkeas has been named executive director of the Lowell Technological Institute Research Foundation. He was previously assistant director of the Foundation and then director of research.

Retiring as treasurer of the Martha Mills, Thomaston, Ga., is **J. J. Blank.** He has been with the B. F. Goodrich Co. for 44 years. **Charles B. Putnam** of the company's plant at Los Angeles, Calif., succeeds Mr. Blank in this capacity.

Bertrand W. Hayward, director of Philadelphia Textile Institute, was recently elected president of the National Council of Textile Education.

Recently elected as general chairman of the textile section of the National Safety Congress was **Charles L. Trommer,** Mohawk Carpet Mills, Amsterdam, N. Y. Other officers elected were: vice-chairman, **H. S. Baucom,** North Carolina Industrial Commission, Raleigh, N. C.; and secretary, **Arthur Kinsman,** The Walter Clark Associates, Barrington, R. I.

Iota Chapter of Phi Psi textile fraternity recently awarded honorary membership degrees to **James C. Self, Jr.,** treasurer, Greenwood (S. C.) Mills; **John L. Thompson,** assistant professor of yarn manufacturing at Clemson College's school of textiles; and **J. E. Garvin,** Burlington Mills.

The Quartermaster Association, during its fifth annual convention in Baltimore, recently elected **Robert B. Smallwood,** president of Thomas J. Lipton, Inc., its new president.

Executive director of the Rayon Information Center is **Benjamin Wood,** formerly vice-president of the William Esty Co., Inc., director of marketing for the Glass Container Manufacturers Institute, and managing director of Tea Bureau, Inc.

Charles D. Green of Spartanburg, S. C., is the new vice-president in charge of manufacturing operations for Reeves Brothers, Inc. Prior to this promotion, he was vice-president and general manager of the cotton manufacturing subsidiaries of the firm. Mr. Green has been with the company since 1928.

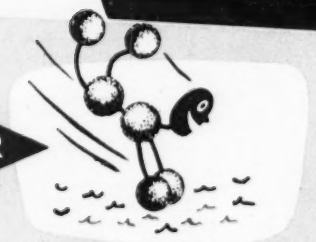
FOR FASTER PRODUCTION OF BETTER SANFORIZED FABRICS

INSIST ON

TWITCHELL® OILS

They're Balanced!

FASTER



Faster production through

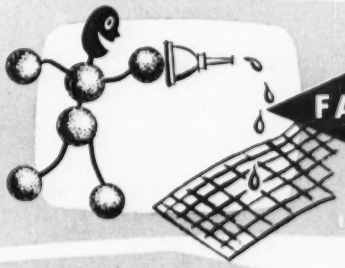
FAST REWETTING

Twitchell Oils assure maximum throughput per range because fabrics wet back rapidly and uniformly—particularly important for even shrinkage at high processing speeds. And, Twitchell Oils retain full effectiveness even when fabrics are stored for long periods.

Faster production through

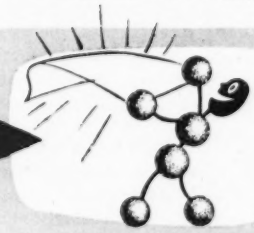
BETTER FIBER LUBRICATION

Fibers "adjust" easily, "slide" readily because Twitchell Oils impart superior lubricity. Speed-slowing, troublesome sticking at the shoes is avoided. Rejects or reruns due to fabric distortion are minimized... thus further assuring maximum production per range.



FASTER

BETTER



Better Sanforized fabrics through

FREEDOM FROM STAINING

Fabrics smell better—look better to the buyer because of the high stability of Twitchell Oils. Oxidation and rancidity are avoided. Treated fabrics possess maximum resistance to yellowing or staining with age... remain fresh and appealing longer.

Better Sanforized fabrics through

SOFTER HAND

Twitchell Oils give you the hand you want—the hand that appeals to buyers. This fourth property of softness permits a reduction in softening agents normally used. In many cases, maximum savings are achieved through complete elimination of other softeners.

BETTER

ORDER ENOUGH FOR A PLANT RUN, OR WRITE FOR FURTHER DETAILS!

Emery

Fatty Acids & Derivatives
Plastolein Plasticizers
Twitchell Oils, Emulsifiers

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Export: 5035 RCA Bldg., New York 20, New York
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Warehouse stocks also in St. Louis, Buffalo, Baltimore and Los Angeles

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Carew Tower, Cincinnati 2, Ohio

Please send me a copy of "Twitchell Oils for Cotton Finishing"

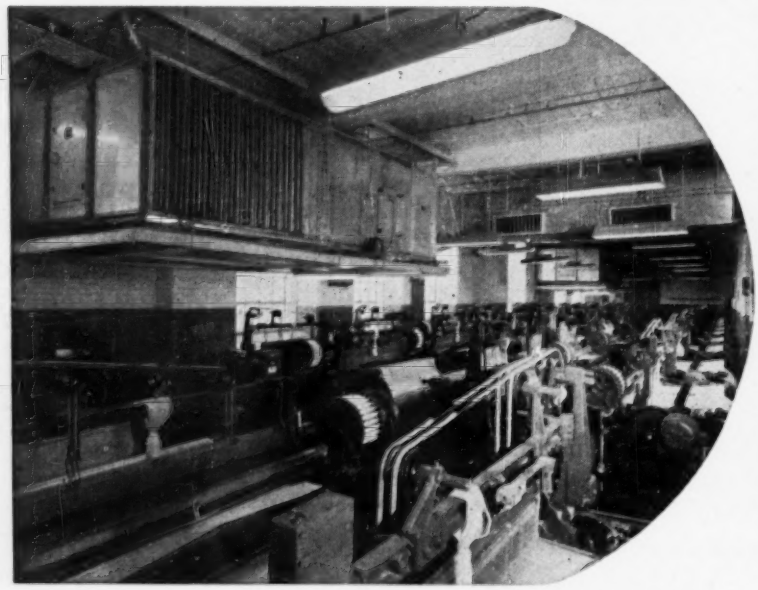
Name_____ Title_____

Company_____

Address_____

City_____ Zone_____ State_____

air conditioning
SPECIALISTS
for the textile industry



Synthetic yarn weaving room with new WHITE suspended air washers in Grendel plant of The Abney Mills, Greenwood, S. C.

Highly technical as it is, industrial air conditioning has always been the work of specialists. White and Company has closely followed each new development in the air conditioning field and passed the benefits along to the foresighted mill operators who have steadily increased their profits with WHITE air conditioning.

With 25 years experience designing, installing and servicing air conditioning for the Textile Industry, White and Company is prepared to install in your plant any of the following air conditioning systems:

1) CENTRAL STATION with REFRIGERATION
2) CENTRAL STATION with AIR WASHERS
3) DRY DUCT UNITS with ATOMIZERS
4) JACKSON Automatic Self-cleaning ATOMIZERS

Estimates and specifications furnished without obligation.

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& COMPANY, INC.

AIR CONDITIONING • HUMIDIFYING • VENTILATING • HEATING

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Personal NOTES ABOUT MEN YOU KNOW

Jeanne Pierre, formerly with A. D. Juilliard & Co., has been named director of fashion of the Rayon Information Center.

William E. Berry has retired as executive vice-president of Riegel Textile Corp. but will continue as a director and will serve as consultant

Mr. Reid

Mr. Berry

for the firm. Succeeding him is **William E. Reid. Van Court Andrews** has replaced Mr. Reid as vice-president and general sales manager, and **Robert Poisson** has been named assistant general sales manager. **Preston David** of the Trion, Ga., organization has been named to the newly created position of managerial assistant in the Ware Shoals, S. C., division. Succeeding him as second assistant superintendent in the dyeing and finishing department is **W. J. Welborn,** previously third assistant. **W. E. Ashley** is now an assistant superintendent on the third shift, grey mill; **Lewis Martin** succeeds him as overseer of the warp yarn mill; and **Fay Willis,** formerly second hand, yarn mill, is now assistant overseer of spinning. In the dyeing and finishing department, **J. C. Cavin** has been made assistant superintendent, third shift, and **McHenry Hankins** has been promoted to overseer of folding and packing.

Harry R. Stephenson retired as president of Southern Bleachery & Print Works, Inc., Taylors, S. C., at the end of 1953. **Robert D. Sellers,** secretary and treasurer, succeeded Mr. Stephenson as president. **Robert J. Stephenson, Jr.,** has been named executive vice-president.

Organization of the Spartanburg Area Personnel Association has been effected by the personnel managers of approximately 60 Spartanburg, S.

HELANCA YARNS

are made by DUFFY SILK with the assistance of HERR FLYERS and HERR CONICAL RINGS

You can easily adapt your present equipment for any textile fiber or blend with HERR Conical Rings. They prevent yarn breakage, give smoother, cleaner yarn, and permit heavier, more uniform doffs. You will have fewer ends down because these rings compensate for and equalize yarn tension variations. No rewicking required.

Specially designed lightweight HERR flyers that are perfectly balanced for accurate yarn control and minimum tension were instrumental in producing this special Helanca yarn in the Duffy Silk Company mill in Buffalo, N.Y.

Do what so many other quality-conscious mills have done — see how HERR equipment increases efficiency — and profits.

Ask for help on your problem.

Pease send us your literature.

NAME..... TITLE.....

COMPANY.....

ADDRESS.....

CITY..... STATE.....

HERR MANUFACTURING CO., INC.

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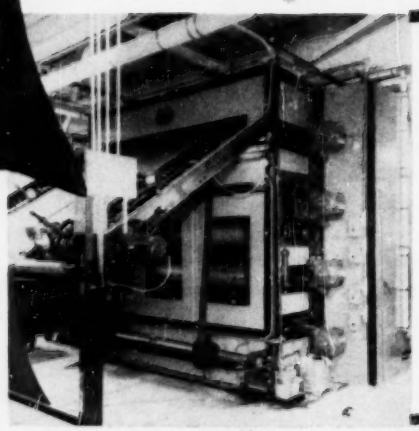
FOR SPINNING AND TWISTING WORSTED, WOOLEN, RAYON, NYLON AND BLENDED YARNS OF ALL TYPES

HUNTER *equipment safeguards quality at* Cyril Johnson

Strict quality control in every phase of manufacturing enables the Cyril Johnson Woolen Co. to produce the distinctive materials preferred by leading designers of men's fine outerwear.

Here, and in many other progressive mills where quality is so safely guarded, Hunter "plus production" equipment is used to finish a wide variety of ***woolens, cottons, blends*** and ***synthetics.***



CYRIL JOHNSON and other leading mills use the Hunter Model F Uniflow Tenter Dryer to produce more yardage, on a wide variety of fabrics, with lower costs for steam, labor and power. This efficient unit is designed and constructed for *faster, safer* and *more uniform* drying. Send for **BULLETIN UTD-2.**

plus production

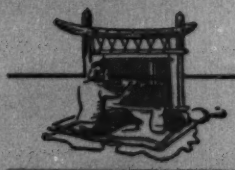
- efficient operation of modern equipment
- less down time of equipment
- quick, easy repair . . . rapid parts delivery

JAMES HUNTER MACHINE COMPANY

NORTH ADAMS, MASSACHUSETTS FOUNDED 1847

BUILT BY HUNTER . . . IT'S DEPENDABLE

JAMES HUNTER MACHINE CO. Hunter NORTH ADAMS MASS.



CALCO *dyelines*

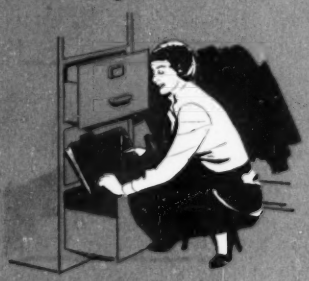
Advertisement No. 35 of a series

PREPARED BY AMERICAN Cyanamid COMPANY CALCO CHEMICAL DIVISION
DYESTUFF DEPARTMENT, Bound Brook, New Jersey
New York • Chicago • Boston • Philadelphia • Charlotte • Providence

Calco

Calcofluor* Whites Setting New Standards of Whiteness and Brilliance in Textiles

Calcofluor Whites are finding increasing application in textiles. They make white cloth whiter by supplementing the action of a chemical bleach. They may be applied either in a separate bath or in the same bath where peroxide bleaching is carried out.



Calcofluors may be mixed with textile resins which are then padded, dried and cured as if the brightener were not present. When used in a print on white backgrounds, they enliven the color by intensifying the contrast between the colored and white areas. For this application, the Calcofluor Whites can be mixed with the discharge printing paste, or the cloth may be treated with Calcofluor White before printing. The background of a print may also be brightened by adding Calcofluor Whites to the soap in the soaping operation. In the case of solid pastel shades, Calcofluor White, added to the dyeing formula, will impart a high brilliance which cannot otherwise be duplicated.

Selected Calcofluor Whites have excellent affinity for wool, acetate and nylon. Wool can be scoured and whitened simultaneously by Calcofluor White added to the scouring bath or applied from an acid rinse in the last bowl of the scouring train.

The remarkable versatility of Calcofluor Whites has indeed set up new standards of whiteness and brilliance in the textile and paper industries. For complete information about them, we suggest that you contact your Calco representative.

New Attack on an Old Problem

Textile printers are tackling the old problem of variations of shade due to hydrosulphite decomposition with the "Flash Aging" method. In this process, the hydrosulphite is left out of the print color and applied immediately before aging. The screen printers have demonstrated that the process is feasible and the more productive machine plants are working out the mechanics of handling goods in large volume. A second great benefit, that of eliminating the weekend overtime required to finish up all printed goods, is additional incentive for the active development work going forward on this system.

More Sportsmen...More Sportswear

People are moving to the country. New communities are springing up across the land as industry progresses toward decentralization. And as large segments of our population adjust to more informal rural environments, we may expect to see significant changes in habits of dress. Specifically, there will be more sportsmen . . . and more demand for sportswear.

In sportswear, of course, color is important. It "makes" the popular buffalo plaids, in which brilliant reds (Calcocid* Brilliant Scarlet 3RN Conc. and Calcomine* Scarlet B) afford a measure of safety to the hunter because of their excellent visibility from a distance. And the blacks in these popular plaids must be fast to cross dying; so Calcochrome* Black T is a popular choice.

In addition to their brilliance of shade and normal fastness properties, both of these dyes offer excellent resistance to sunlight, weather, water and perspiration. They are truly "outdoor" dyes!

Black is Back

Among retailers and consumers, black is finding increasing favor as a sportswear color, and predictions are that it will be important for Spring.

Woolens are among the most popular sportswear fabrics. To achieve especially pleasing, deep black tones in such fabrics, Calcochrome Blue Black Conc. and Calcochrome Blue Black R Conc. are recommended. Fast to light and washing, they are excellent for use on sweaters and other woolen sports fabrics.

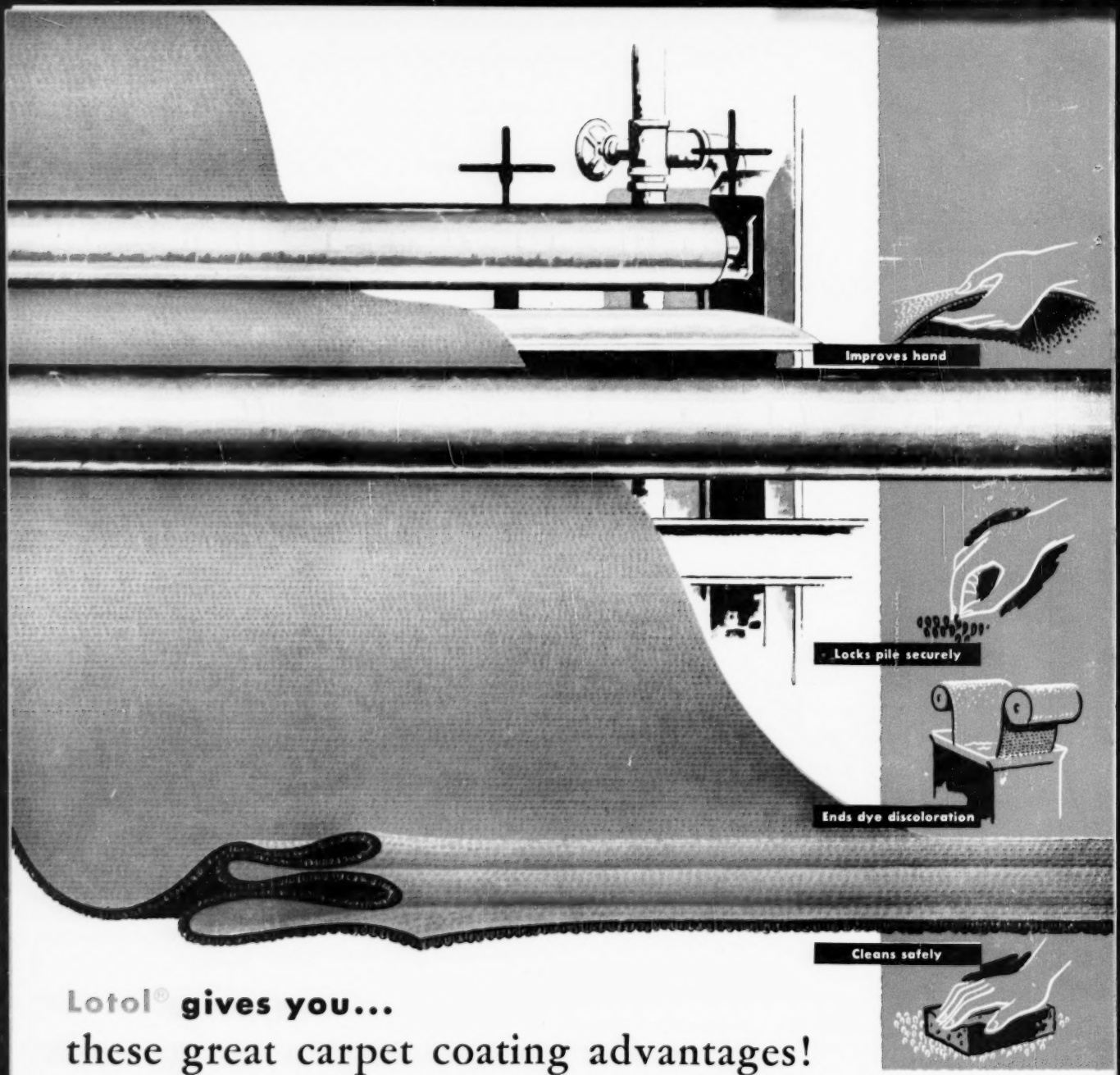
For the Textile Bookshelf

The Application of Dyes to Textile Fibers at High Temperatures (Calco Technical Bulletin No. 833). A review of basic studies of the dyeing of textile materials at elevated temperatures, begun in 1941 by Calco in cooperation with the Bachmann Uxbridge Worsted Corporation.

Identification of Synthetic Fibers by Microscopical and Dye Staining Techniques (Calco Technical Bulletin No. 831). Review of stain and microscopical identification tests which have been found very useful in determining the fiber composition of materials being colored. This is often difficult because of the many combinations which are possible and because of the newness of many of the fibers.

*Trade-mark

Aided by its Research Laboratory, Calco introduced 33 new products into its line during 1953. Total: over 1,000.



Lotol® gives you...

these great carpet coating advantages!

1. Finer hand and body! Naugatuck's Lotol—a specially developed latex compound—gives carpets greater weight and body, improved resilience, and lasting flexibility.

2. Stronger pile locking! Lotol's superior tensile properties lock pile for life—increase locking strength—prevent raveling, wrinkling, and fraying.

3. Outstanding resistance to dye bath! Lotol has minimum effect on dye shades—withstands as much as 8 hours in boiling dye without any discoloration or breakdown.

4. Excellent cleanability! Lotol-backed carpets can be cleaned time and time again without danger of shrinking, odor, or other harmful effects.

Lotol compounds—proven in paints, textile and leather treatment, paper impregnation, and dozens of other uses—are just one of many reasons why Naugatuck is your finest source of latices, for bonding, coating, dipping, or any latex need.

Find out more about Lotol and how it can help you produce a finer carpet, more economically. Write to address below.

Naugatuck Chemical

311 ELM STREET
NAUGATUCK, CONNECTICUT

Division of United States Rubber Company

BRANCHES: Akron • Boston • Charlotte • Chicago • Los Angeles • Memphis • New York • Philadelphia

IN CANADA: Naugatuck Chemicals, Elmira, Ontario

A Complete adjustable speed line

Get the right answer from Louis Allis

It pays to think first of the Louis Allis Co. whenever you're considering adjustable speed drives for your product or plant. Louis Allis builds all basic types. There's no compromising — from this complete line you can select the unit that's exactly suited to your job conditions and engineered for your application.

For the simplest — and best — solution to any adjustable speed drive problem, call your nearby Louis Allis Sales Engineer, or write to us.

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MILWAUKEE 7, WISCONSIN

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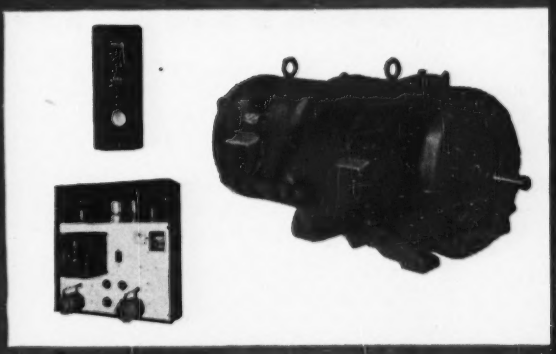
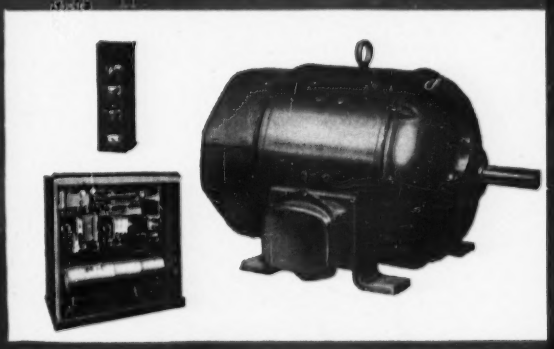
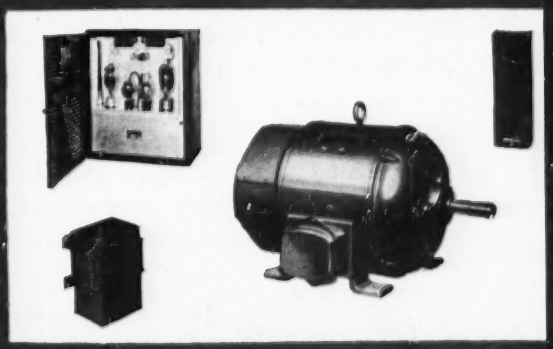
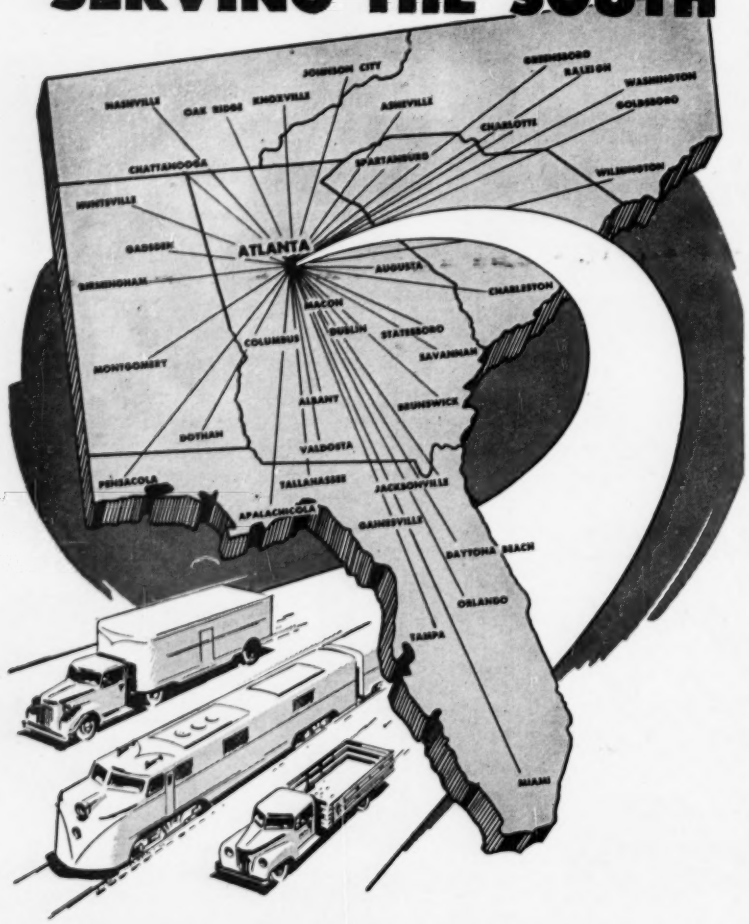






SERVING THE SOUTH



STEEL IN A HURRY—WAREHOUSE TO YOU

15 main railroad lines and 75 major motor freight lines operating out of Atlanta enable us to make most deliveries of items in stock within 24 to 48 hours—many in less time!

Our new warehouse was constructed with service foremost in mind. Rail sidings come right into the building. Self-leveling docks speed the loading of trucks.

When you want steel in a hurry—a single piece or a car-load—write, wire, or telephone and let us show you why more and more users of steel are depending on our Warehouse Division to meet their needs.

AMERICAN STEEL WAREHOUSE ASSOCIATION — BETTER DISTRIBUTION

Service In Step With Southern Progress

WAREHOUSE DIVISION

Atlantic Steel Company

ATLANTA GEORGIA • EMERSON 3451

Personal NOTES ABOUT MEN YOU KNOW

C., area mills. **Dwight Frey** of Mayfair Mills at Arcadia, S. C., was elected chairman of the association. **R. A. Bannister,** Union-Buffalo Mills, Union, S. C., vice-chairman, and **Mrs. Gladys Brockett** of Beaumont Mills, Spartanburg, secretary-treasurer.

Hubert Howell succeeds his brother, **W. J. Howell,** as maintenance supervisor for A. M. Smyre Manufacturing Co., Gastonia, N. C.

James J. Woodall has retired as overseer of spinning at Coosa No. 2 mill of Standard-Coosa-Thatcher Co., having completed 43 years of service with the company.

Robert J. Dinan, assistant superintendent at the Andover plant for three years, is now superintendent of the Tilton Mills of M. T. Stevens & Sons Co., a division of J. P. Stevens & Co., Inc. He succeeds **John Sullivan,** transferred to the Marlan Mills at Andover.

Promotions recently made at The Seminole Mills, Clearwater, S. C., are: **Robert Bonner,** overseer of spinning and twisting; **Arthur Gibson,** cloth room overseer; **Crawford Asbell,** night superintendent; **William Harris,** assistant production manager; and **Elmer Wilson,** shift foreman of spinning and twisting.

Textileather Corp., Toledo, O., has appointed **James W. Brady** chief in-

Mr. Brady

dustrial engineer. Mr. Brady was previously with Emery Industries, Inc.

New officers of the Textile Education Foundation, Inc., are: President, **George H. Hightower** of Thomaston (Ga.) Mills; vice-president, **J. F. Fowler** of E-Z Mills, Inc., Cartersville, Ga.; treasurer, **A. B. Edge, Jr.,** of Callaway Mills Co., LaGrange, Ga.; and secre-

Standard's quality products

for all fibers and fabrics

PYROTEX — For scouring and dyeing Wool, Worsted, Cotton, Acetate, Rayon and Nylon. Neutral, effective under acid, alkaline and hard water conditions.

STANTEOSINE — Substantive softener for Acetate, Rayon, Cotton, Worsted, Wool. Minimum effect on shade and light fastness of dyed fabrics. Anti-static properties.

STANDAFINS* — Durable and semi-durable finishes imparting a full range of body, hand and drape to all fabrics; non-slip finishes; snag-resistant finish for hosiery; ribbon finish.

STANDAPOLS* — Quality sulfonated oils for finishing, softening, throwing, sizing and emulsifying; anti-static agents.

STANTEX* OILS FOR YARNS AND STAPLE — Suitable for all fibers in coning, winding, twisting, spinning, weaving, knitting, etc. Characterized by high lubricity, excellent stability and scourability and good anti-static properties.

RETARDINE* — For level dyeing and stripping of vat, sulfur and direct colors.

STANTEX* PENETRATORS — For fast, efficient wetting and surface reducing action in dyeing and finishing of all yarns and fabrics.

SANFOROLS — For efficient wetting and rewetting and softening properties in preshrinking processes. No gumming of shoes or odor development.

SOLIDINA — For improving fastness to washing and crocking of direct colors.

MOYTOL — Penetrant for dyeing, fulling, carbonizing, mercerizing, finishing and sizing. Effective in acid, alkaline and salt solutions.

*Reg. U. S. Pat. Off.

STANDARD CHEMICAL PRODUCTS, Inc.

1301 JEFFERSON STREET, HOBOKEN, NEW JERSEY

Chattanooga, Tenn • Paterson, N. J. • Providence, R. I. • Salisbury, N. C.
Sunbury, Pa. • Sacramento, Cal. • Greensboro, N. C. • Leaksville, N. C.

Armstrong's NO-7075 Aprons are
SPECIALLY ENGINEERED

Newest Accotex Apron runs clean and smooth without top apron slippage

If you're spinning on the new long-draft frames with close-pin cradles, you can turn out better yarn more efficiently with the synthetic rubber apron that's specially engineered for these frames—Armstrong's NO-7075 Accotex® Apron.

NO-7075 aprons are really fitted to the job. The white inner face has a low coefficient of friction which won't permit buckling or jamming at the pin, yet is high enough to grip the drive roll firmly to assure smooth, regular drafting. This white inside runs clean, too. It doesn't collect loose fibers or build up hard-to-clean black deposits.

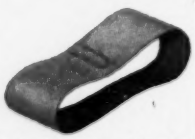
The black outer face, in addition to a high-friction surface that drives the top apron without slippage, is compounded to have excellent resistance to tearing and abrasion.

These two layers of rubber are vulcanized together around an unstretchable core of cotton cords then given a patented treatment which provides proper surface characteristics.

Any mill man who has used NO-7075 aprons will tell you how smoothly they run on frames equipped with close-pin cradles. A test in your mill will prove to you how well the NO-7075 performs. To set up a test, call your Armstrong man today or write to Armstrong Cork Company, Textile Products Department, 6401 Ivy Street, Lancaster, Penna. Available for export.

A complete line of top-quality aprons

FOR CLOSE-PIN CRADLES. The NO-7075 apron gives you smooth, clean operation on the latest type equipment.



FOR SINGLE-APRON SPINNING. The super-flexible NO-750 insures smooth slip-roll action needed for uniform yarn.

FOR DOUBLE-APRON SPINNING. The NO-700 Accotex is smooth and long wearing, first choice in hundreds of mills.

FOR CLOSE-PIN CRADLES

NO SLIPPAGE HERE

Black outer face has the right friction to keep the top apron running smoothly. This prevents the yarn irregularities which occur when aprons slip at points of contact.

RUNS CLEANER HERE

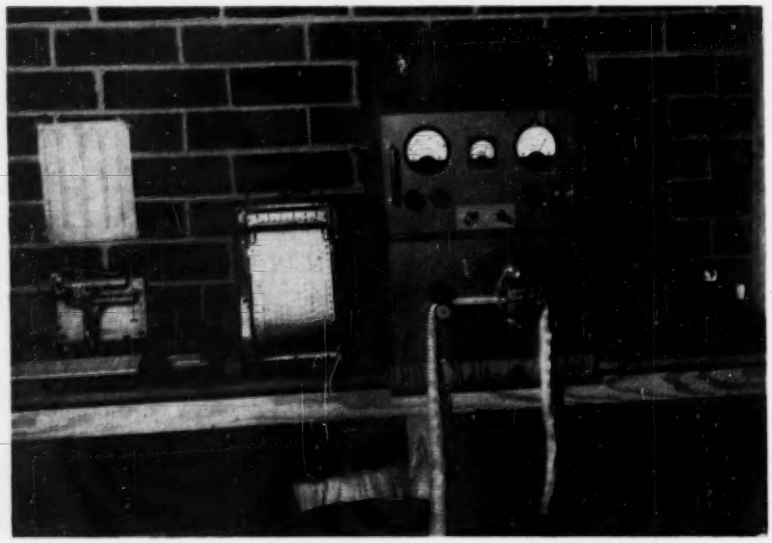
White inner face won't attract loose fibers, doesn't tend to build up excessive waste inside the apron.

RUNS SMOOTHER HERE

Carefully regulated surface friction of inner face allows smooth, sure transfer of power from driving roll to apron, yet prevents jamming or buckling at the pins.

ARMSTRONG'S ACCOTEX APRONS

FIELDEN Yarn Evenness Tester



PREVENTS LOSSES FROM UNEVEN YARN

With this instrument you can detect uneven yarn, due to machine or fiber faults, and correct the cause at once.

The Fielden Evenness Tester, Recorder, and Integrator is saving many mills its cost many times over by helping prevent loom stoppage traceable to yarn faults, and second quality cloth due to poor warps or filling.

- This one instrument is your laboratory to measure yarn evenness at any stage in processing. No costly technical laboratory is needed.
- Because of its simplicity, trained laboratory workers are not required. Ordinary spinning and winding room help can operate this Fielden instrument. Control is by one knob only, making operation as easy as that of a TV set.
- Takes everything from the heaviest slivers to the finest filament yarn.

Fielden Yarn Evenness Tester, Recorder, and Integrator operates on a capacity or dielectric principle, using the Fielden Bridge System, and provides the perfect parallel electric field essential for accuracy. Once in balance it remains in balance.

Scores of Fielden Yarn Evenness Testers are in use by leading mills and commercial spinners. The president of one mill states:

"It has proved invaluable. Its use made possible the discovery of a repetitive fault not apparent to visual examination. Has minimum of adjustments. Less costly than other testers."

With competition growing keener, you cannot allow uneven yarns, bad warps, and excessive seconds, to remain undetected and unchecked.

Mail the coupon today for full details of how Fielden Yarn Evenness Tester, Recorder and Integrator can save you thousands of dollars a year.

MAIL COUPON FOR COMPLETE INFORMATION.

Fielden INSTRUMENT DIVISION
ROBERTSHAW-FULTON CONTROLS COMPANY
2920 North Fourth Street Philadelphia 33, Pennsylvania

NAME.....
COMPANY.....
ADDRESS.....

Personal NOTES ABOUT MEN YOU KNOW

tary, **T. M. Forbes** of the Cotton Manufacturers Association of Ga. Directors elected to serve three-year terms were: **T. O. Arnold** of Covington (Ga.) Mills; **W. E. Croocks** of Celanese Corp., Rome, Ga.; and **William D. Ellis** of Southern Mills, Inc., Atlanta, Ga.

Textiles-Incorporated, Gastonia, N. C., has named **Dan Lamb,** superintendent of Arlington, to take over the additional duties of superintendent at Arkray-Mutual and Myrtle, following the retirement of **M. B. Cloniger** and **D. H. Whitener.** Mr. Lamb will make his headquarters at Arkray.

Three new directors of Textron Incorporated are **Harry J. Burkart,** F. Burkart Manufacturing Co., **Erwin N. Darrin,** chairman of the board of Draper Corp., and **Gordon Scherck,** Scherck, Richter & Co.

Frank D. Lockman, superintendent of the Buffalo (S. C.) Mill, Union-Buffalo Mills division of United Merchants & Manufacturers, Inc., has retired after a 57-year textile career. **James B. Lybrand,** formerly assistant superintendent, was promoted to fill the position vacated by Mr. Lockman. New personnel manager at this plant is **Robert E. Lee,** who succeeds Harry O. Cosgrove, now manager of the Old Fort, N. C., plant. **Gordon Davis** was chosen for the newly created job of production manager of the Union plant. **Carl E. Carson** has been promoted to night superintendent; and **Arthur H. Rollins** is now shift foreman in the spinning department. **Irving Billings** has been made shift foreman of the cloth department at the Buffalo plant. In the Bath (S. C.) Mill, **Bennett Smith** has been appointed outside overseer and **Walter Bush,** clothroom foreman, second shift.

J. W. Partain, shift supervisor in the Reid Plant (Hogansville, Ga.) of the United States Rubber Co. has retired from active service after becoming 65 years of age.

Edward Michaels, Jr., formerly with Burlington Mills Corp., is now assistant director of manufacturing at the Vanity Fair Mills, Monroeville, Ala.

Now in charge of the Brunswick, Maine, plant of Verney Corp. is **William Jennings,** who was formerly

For perfection in high-gauge hosiery

'you need the ultra-precision of Torrington fine-gauge Spring Beard Needles. Minute attention to every detail—the *exactly correct* bend of the beard, for example—is your assurance of top performance when you specify

TORRINGTON NEEDLES

SPRING BEARD • LATCH • LEADED AND PARTS

THE TORRINGTON COMPANY • Torrington, Conn., U.S.A.
Established 1866

Branches: New York · Philadelphia · Chicago · Boston
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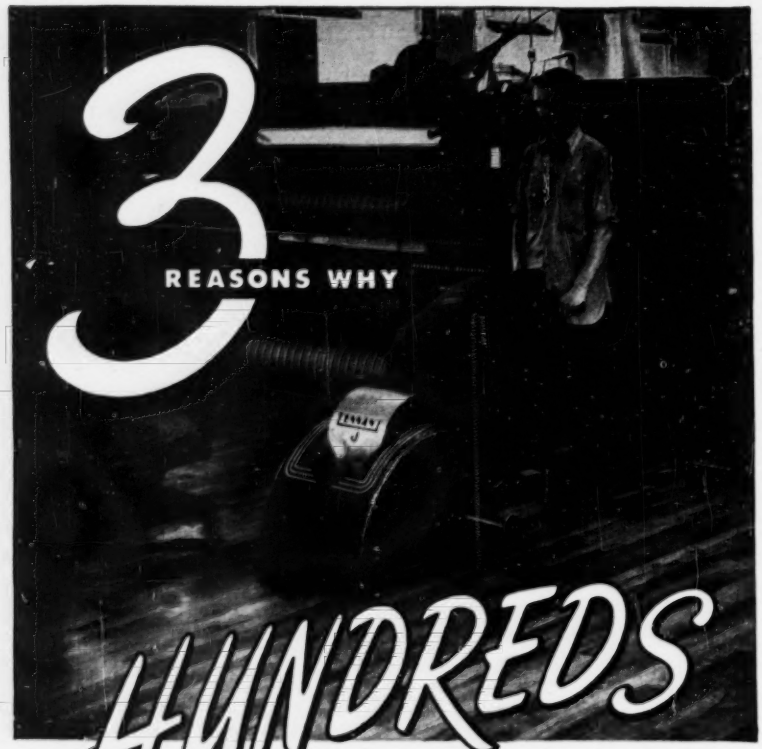
Pacific Coast Representative: E. G. Paules, 1762 W. Vernon Ave., Los Angeles 37, Calif. Broadgate House, 7-10 Eldon St., London E.C. 2, England



OF MILLS USE THE
TENNANT *System*
OF FLOOR MAINTENANCE

Its cost-saving performance and ease of use have established TENNANT as *THE accepted floor maintenance system of the U.S. textile industry.* This unique acceptance is due to these practical advantages . . .

1. CUTS FLOOR MAINTENANCE COSTS

You save 4 ways—in *manhours,* by cleaning faster in one operation with 1 man; you cut *accident costs* by DRY-cleaning (no wet, slick floors). You avoid needless *floor repair costs* . . . and reduce *stock losses* from snags, splinters and soilage.

2. EASIEST TO USE: eliminates scrubbing!

Works like magic! You get rid of dark, rough, oil-soaked fibers . . . and have a smooth, bright, *hardened* floor surface that resists dirt. Stays clean longer! Ends costly, harmful scrubbing and wet-mopping.

3. FITS YOUR MILL'S SPECIFIC NEEDS

Your TENNANT System is individually selected and planned, 100% *specialized* for your mill. Assures you of best results. Personal installation and periodic inspection . . . *without charge.*

ONLY DAILY CARE needed is fast, low cost sweeping. Oil, dirt and dust do not cling to the smooth, hard surface of a **Tennantized** floor. Dirt sweeps off easily . . . Keeps your floor bright and attractive.

OFFICES IN PRINCIPAL CITIES

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Write Today!
Get helpful case histories, illustrated bulletins, etc. Learn HOW YOUR MILL CAN SAVE ON MAINTENANCE COSTS . . with the Tennant System.

FLOOR MAINTENANCE SYSTEM
Creators of the TENNANT SYSTEM OF FLOOR MAINTENANCE—Manufacturers of Equipment & Materials for MAINTENANCE OF FLOORS, DECKS, ROOFS, HIGHWAYS

Personal NOTES ABOUT MEN YOU KNOW

manager of the company's plant at Manchester, N. H. Replacing Mr. Jennings at Manchester is **Michael Pytko,** superintendent of weaving. **Walter Bienek,** Mr. Pytko's assistant, has filled the vacancy created by his promotion.

Obituaries

Thomas S. Boone, Jr., 58 president of Wissahickon Plush Mills, Philadelphia, Pa.

Robert Braun, 81, chairman of the board of Bates Manufacturing Co., Lewiston, Me.

O. W. Burkett, 63, secretary-treasurer of the Vanette Hosiery Mills, Dallas, Tex.

George Crompton, 81, director of Crompton & Knowles Loom Works.

Gaston DuBois, 73, consulting engineer and former president of Monsanto Chemical Co.

William E. Hartman, 65, former manager of United Woolen Co., Bluefield, W. Va.

Sanford Koenigsberg, 46, co-owner of Milsan Mills.

Alec Masson, 46, production manager of Jantzen Knitting Mills, Seneca, S. C.

Arthur Odell, 67, president and treasurer of Kerr Bleaching & Finishing Works, Inc.

Earl A. Powell, 59, superintendent of the Goodyear-Clearwater Mills, Rockmart, Ga.

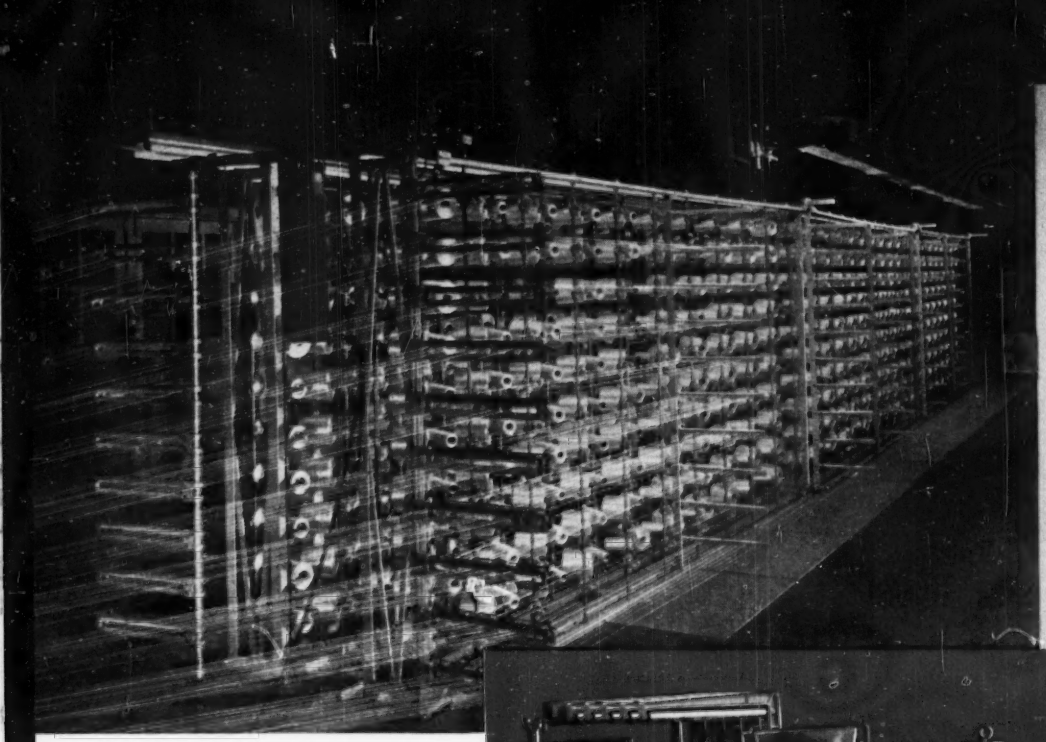
Thomas W. Prestwich, 69, retired vice-president of American Woolen Co.

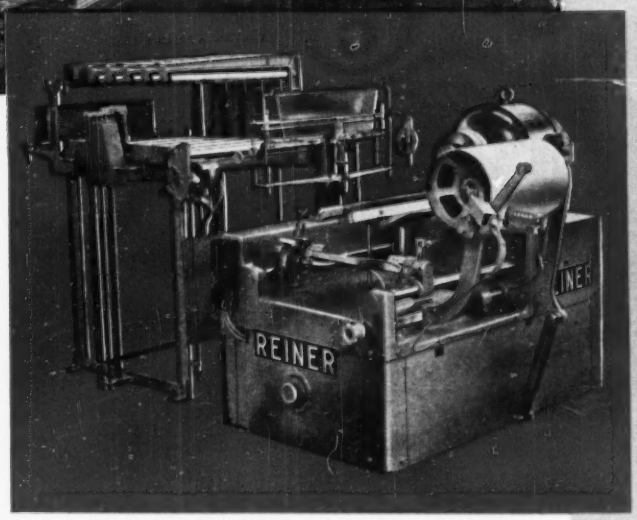
Vincent R. Schmidt, 39, secretary and plant manager of Schmidt Manufacturing Co., New Bedford, Mass.

George W. Ketz, 75, retired vice-president and director of A. D. Juilliard & Co., Inc.

Earle E. West, 63, president of Redman Process American Corp. and formerly with the Underwear Institute.

Emil V. Wilson, 48, president of Emil V. Wilson Co., Greenville, S. C.





ALSIMAG®

CONDUCTIVE THREAD GUIDES for TRICOT WARPING

of synthetic fibers

High speed warping and creeling of synthetic fibers has steadily increased. This created an imperative need for guides with long life and flawless performance under these exacting conditions. All guide requirements have been met with AlSiMag guides such as the complete AlSiMag line of guides for Reiner tricot warpers and creels as shown at the right. AlSiMag guides have these advantages:

1. LONGER LIFE. AlSiMag guides are hard, homogeneous. Mill records show that AlSiMag guide costs are often as little as 5% of former guide costs per pound of synthetic yarn processed.

2. UNIFORM TENSIONS. Finish is retained over long periods . . . is the same from guide to guide and lot to lot.

3. REDUCTION OF STATIC. Electrically conductive . . . helps ground static electricity created by high speed yarn travel.

4. DIMENSIONAL ACCURACY. Each guide is uniform physically and dimensionally. Speeds installation and cleaning. Permits uniform tension at every position on the creel or warper.

5. CUSTOM MADE. Standard AlSiMag guides are available for almost all equipment but if your processes or problems are different, guides are readily produced for your special needs. Such guides do not usually involve special tooling costs, frequently result in dramatic savings.

ALSIMAG GUIDES FOR REINER CREELS AND WARPERS

These guides are carried in stock by Robert Reiner, Inc., at Weehawken, New Jersey, for immediate shipment. These same guides can be ordered from American Lava Corporation, Chattanooga, Tennessee, for delivery from normal production schedules.

AlSiMag No. GE-19123
Reiner No. CR-1803
BALLOON REDUCING EYE
FOR TENSION BRACKET

AlSiMag No. GE-19122
Reiner No. CR-1804
FRONT CREEL BAR EYE

AlSiMag No. GE-19121
Reiner No. CR-1805
EXIT EYE ON
TENSION BRACKET

AlSiMag No. GU-24681-A
Reiner No. CR-1952
TENSION POST—1¼" LONG

AlSiMag No. GE-26653
Reiner No. SW-1670
COLLECTING EYE BOARD EYE
FOR METAL BOARD EYELET . . .
RETAINED BY SPRING CLIP

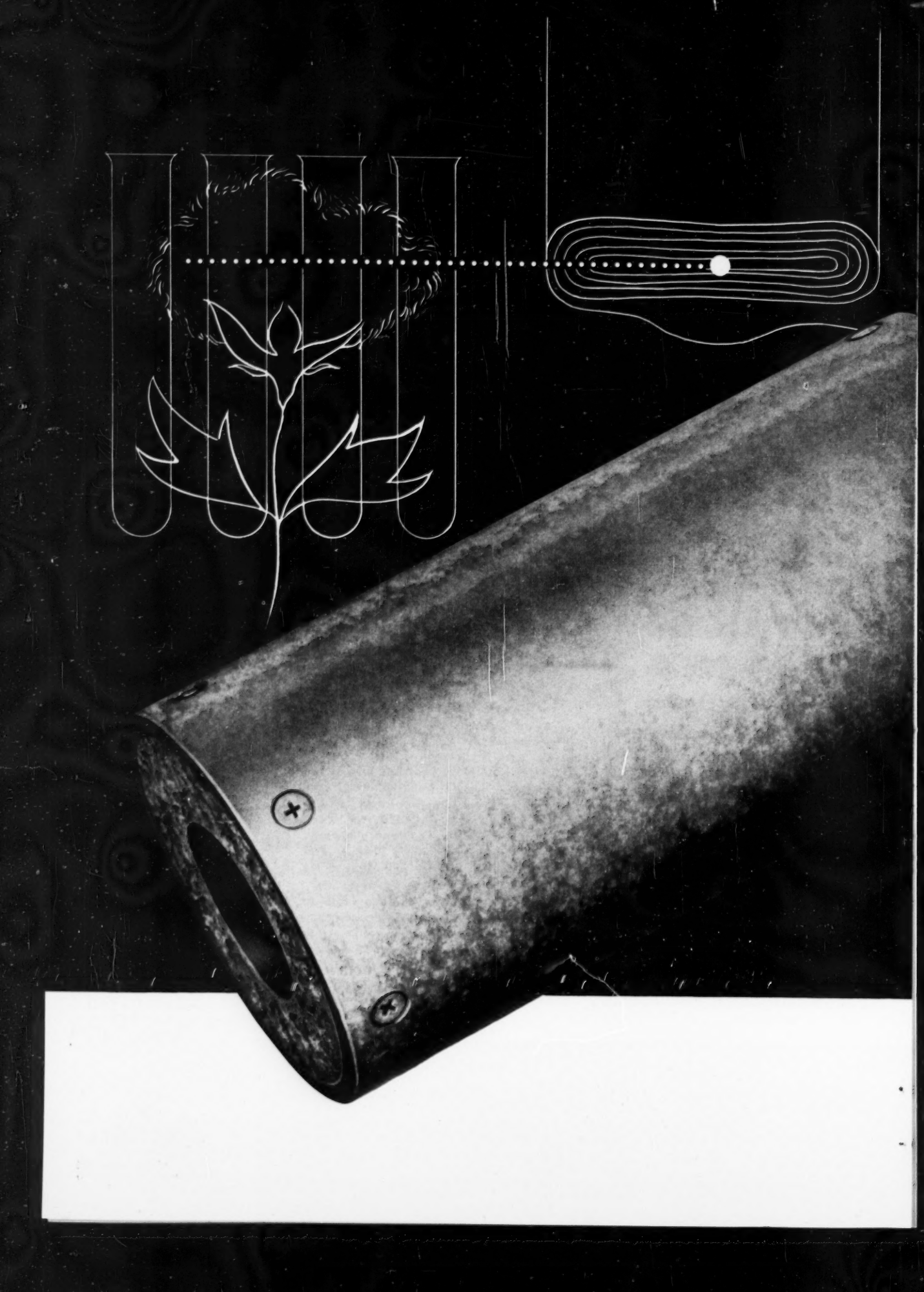
AlSiMag No. GE-23138
Reiner No. CR-1892
STOP MOTION INSERT EYE
(Non Conductive AlSiMag 192)

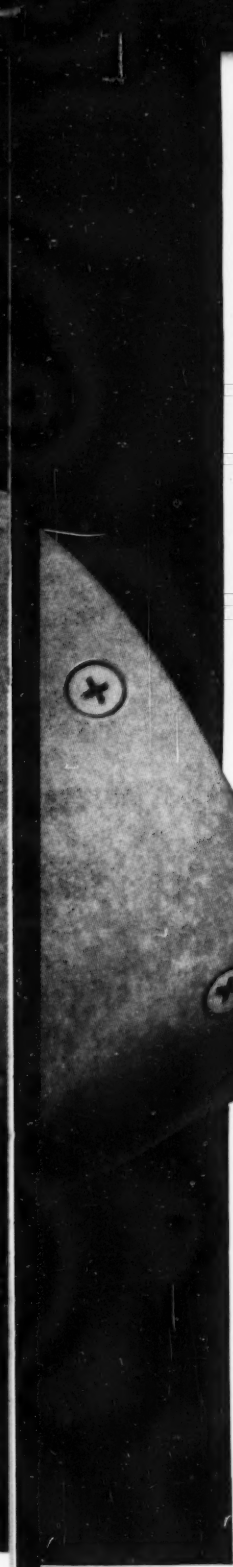
52ND YEAR OF CERAMIC LEADERSHIP

AMERICAN LAVA CORPORATION

A SUBSIDIARY OF MINNESOTA MINING AND MANUFACTURING COMPANY

CHATTANOOGA 5, TENNESSEE





Here's what micarta® LAMINATED PLASTICS is doing to boost textile production

A leading textile mill wanted lighter, tougher lap rolls which would stay on the job longer. MICARTA® was the answer. Now the MICARTA lap rolls not only last months longer than the ordinary wooden rolls but their lighter weight permits up to three additional pounds of cotton to be wound on each roll. In addition, the MICARTA surface permits instant pick-up and wrinkle-free winding without the nuisance and expense of removing clinging bits of lap.

Here's what MICARTA can do for you

Light, tough, smooth-wearing MICARTA will pay off for you on products like spinning buckets, shuttles, bobbins, pirns, picker sticks and gears. On other textile applications, too, you can take advantage of its ability to withstand and "cushion" heavy vibration and shock . . . to reduce nerve-wracking noise. MICARTA means economy, less maintenance, more production.

Remember that Westinghouse-developed MICARTA is a thoroughly proved basic material. For the complete story on MICARTA call your nearest Westinghouse office or just fill out the coupon below. J-06542

YOU CAN BE SURE...IF IT'S Westinghouse

Westinghouse Electric Corporation • MICARTA Division, Trafford, Pa. • Attention: L. A. Padley

micarta® is basic!

Sir: (Please check one)

☐ Please have your representative call

☐ Please send me the complete facts on MICARTA

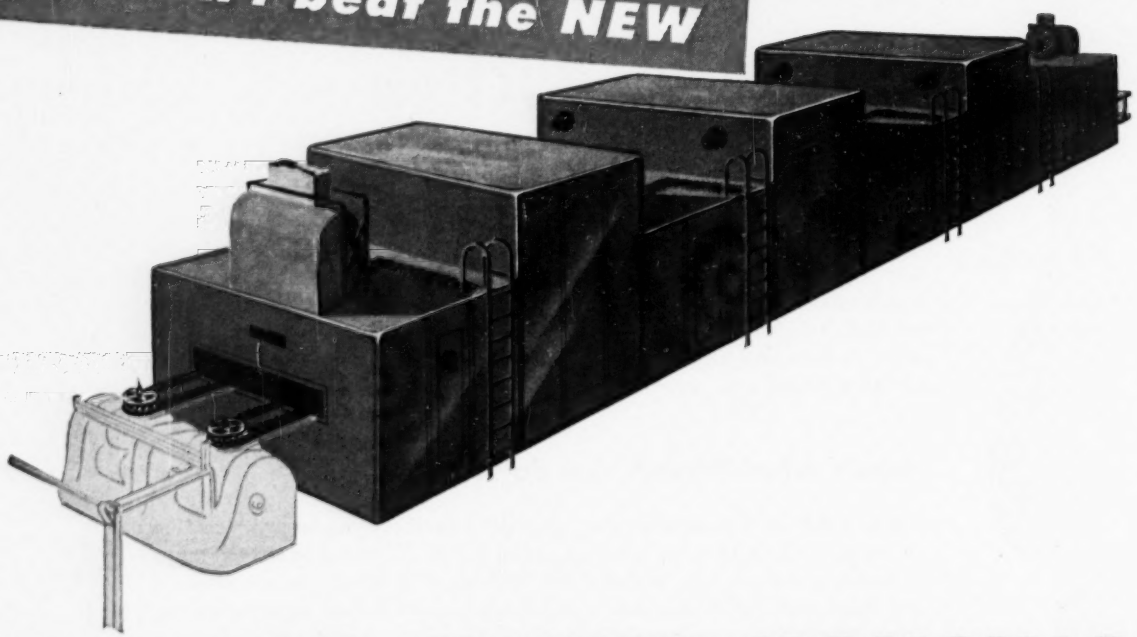
Name_____ Company_____

Address_____

City_____ Zone____ State_____

FEATURE for FEATURE...

you can't beat the NEW



PROCTOR TENTER HOUSING

Check the completely redesigned Proctor Tenter Housing and you'll find many important features *never before furnished* in this type of machine.

UNIFORMITY—The air circulation system of this new tenter housing is arranged to absolutely assure a uniform distribution of air from center to side of the material.

FLEXIBILITY—Dampers regulate the volume of circulated air in addition to controlling the amount of air as required to individual top and bottom ducts. With these controls a complete range of fabrics may be handled.

PRODUCTION—The new Proctor Tenter Housing has the greatest drying capacity per foot of length ever offered to the textile industry . . . from 50% to 100% more drying capacity than conventional tenter housings.

ECONOMY—The operating cost including labor, power and all other costs is appreciably less per yard of cloth output. This saving can pay for the equipment in as little as two years.

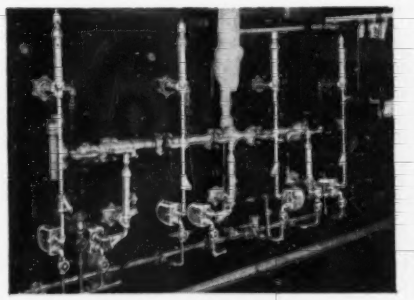
NEW CONSTRUCTION—An entirely new panel construction results in a housing with a smooth exterior and interior.

ACCESSIBILITY—Wide, well placed doors provide ready access to the interior for cleaning and routine maintenance.

Checked feature for feature—you soon discover that you buy most per dollar invested when you buy PROCTOR. Write today for details.

PROCTOR & SCHWARTZ, INC., Philadelphia 20, Pa.

Misused steam plays havoc with production schedules and costs



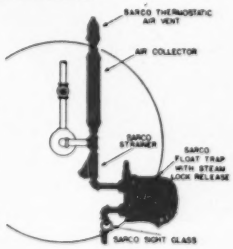
Drying speed increased 10% with proper steam trapping

Toscony Fabrics, Inc., Pawtucket, R. I., had a drying problem with a slasher. Warps wouldn't dry evenly due to temperature variations across the cylinders, caused by ineffective discharge of condensate and air.

The problem was solved by installing a Sarco Draining and Air Venting System on each of the seven cylinders.

Now there is immediate and continuous removal of condensate, air and incondensable gases. A special steam-lock release on the Sarco Float-Thermostatic trap prevents waterlogging of cylinders.

Result: Viscose yarn drying speed increased 10% with even drying across the entire width of the machine.



Simple, efficient, cost-cutting trapping system requires virtually no maintenance —
The Sarco Draining and Air Venting System is a factory-assembled unit. It consists of a thermostatic air vent with air collector pipe, a strainer, special steam trap with steam-lock release, and a sight glass.

Use Steam Right

1. **To prevent production delays**
2. **To improve product quality**
3. **To maintain desired output**
4. **To reduce labor and steam costs**

IN YOUR processing operations, are you up against troubles such as slow-ups, uneven or inadequate heating, poor temperature control—resulting in reduced output, lowered product quality and increased costs?

You may suspect that your equipment is at fault. But process heating headaches often are due to ineffective utilization of steam. The wrong type trap can cause condensate to waterlog equipment. Improper air-venting can reduce the rate of heat transfer by as much as 11%. Manual temperature control may prove erratic, affect product quality, increase production costs.

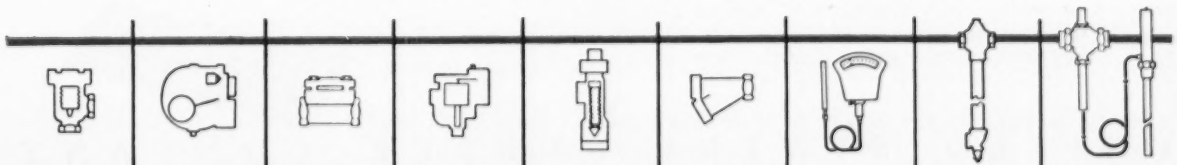
If your plant is suffering from any of these production handicaps, Sarco can help you. Sarco has a wealth of practical experience in the process industries to put to work for you. Plant after plant, with Sarco help, has licked these problems through simple, inexpensive changes. The results have been: increased output, improved product quality uniformly maintained, lower production costs.

Engineering Service: Our engineering service is yours for the asking. Call our local representative, or, write today for case histories describing how other plants in your field have solved similar problems through the proper application of steam traps and inexpensive temperature controls. Sarco Company, Inc., Empire State Bldg., New York 1, N. Y.

SARCO

improves product quality and output

STEAM TRAPS • TEMPERATURE CONTROLLERS • STRAINERS



Thermostatic Steam Traps	Float-Thermostatic Steam Traps	Thermodynamic Steam Traps	Camlift Bucket Steam Traps	Liquid Expansion Steam Traps	Strainers	Electric Temperature Controllers	Water Blenders	Self-Operated Temperature Controllers

NEW Abbott winder sleeve molded of U. S. Uscolite!

Uscolite sleeves installed on Abbott winder. At left is a close-up of the sleeve.

Standard equipment on the Abbott winder are United States Rubber Company's Uscolite sleeves. Made from a special rubber-plastic compound, these sturdy sleeves are also used to convert old equipment. They have excellent chipping resistance and are unusually durable. They save time and work by reducing creel breaks on the warpers, thereby preventing wild yarn and knots from occurring in the twister beams and slasher beams. Large size of sleeve, enabling a larger package, also helps reduce creeling time. Available in 7 colors for easy yarn identification.

More economical operation plus *higher quality of output* are the results of using "U.S." textile mill specialties. Investigate the complete line. Consult any of our 25 District Sales Offices or write to address below.

"U.S." Research perfects it
"U.S." Production builds it
U. S. Industry depends on it

U.S. RUBBER
SERVING THROUGH SCIENCE

UNITED STATES RUBBER COMPANY

MECHANICAL GOODS DIVISION · ROCKEFELLER CENTER, NEW YORK 20, N. Y.

Hose • Belting • Expansion Joints • Rubber-to-metal Products • Oil Field Specialties • Plastic Pipe and Fittings • Grinding Wheels • Packings • Tapes Molded and Extruded Rubber and Plastic Products • Protective Linings and Coatings • Conductive Rubber • Adhesives • Roll Coverings • Mats and Matting

the Old Grey Mare

is better than ~~ain't what~~ she used to be

Thanks to Meadows "Conversions," thousands of long-service spinning and twisting frames... many of them old enough to have been "turned out to pasture" . . . are running faster and smoother, and turning out more yarn than they did in the yearling days.

A typical Meadows "Conversion" consists of the installation of individual drive pulleys, ball bearing tape tension pulleys, aluminum alloy separators, silent chain drive—and high strength polished and ground steel shafting, mounted on heavy-duty, self-aligning ball bearings.

The result is lower power consumption, even tension at all times, a more uniform speed and twist, fewer ends down, and increased yarn production . . . at far less than the capital investment cost of new frames. Can be quickly and easily installed. Write or call us for estimate and particulars.

MEADOWS CONVERSIONS

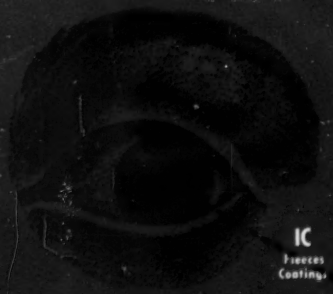
MEADOWS MANUFACTURING COMPANY • ATLANTA, GEORGIA

Representatives:

G. P. (JACK) STANLEY P. O. Station A—Box 3223 Greenville, South Carolina	MATTHEWS EQUIPMENT COMPANY 93-A Broadway Providence 3, Rhode Island	SAM R. HOGG P. O. Station A Atlanta, Georgia	WALTER S. COLEMAN P. O. Box 782 Salisbury, North Carolina

LOOK TO SUPREME...

...for your future "profit-knitability"



IC Fleeces Coatings

ML Pile, Loop-Terry and Plush

MJ Body Size Jersey Wide Striped Jersey

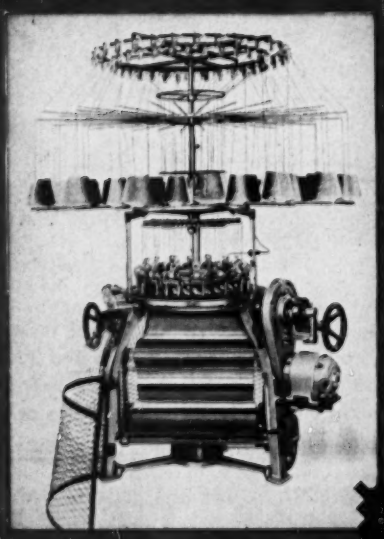
ROF Jacquard Type Flootless Patterns

SR Plain and Swiss Rib

LRP "Vent-Knit" Mesh Patterns

SA/AF Variable Striped and Patterned Jersey

***MLT/SA** Long and Short Loop Four Color Striped Terry

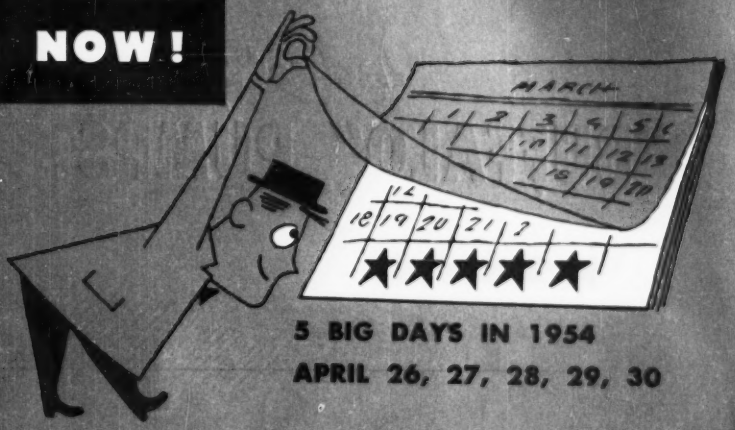


Supreme's MLT/SA* Gives The Knitter Varied Profit Possibilities

KNITTING MACHINE CO., INC.
94-03 104th STREET, OZONE PARK 16, N. Y.
Southern Representative and Showroom
The Mallack Co., 711 S. Tryon St., Charlotte, N. C.

can you wait just a few more weeks?

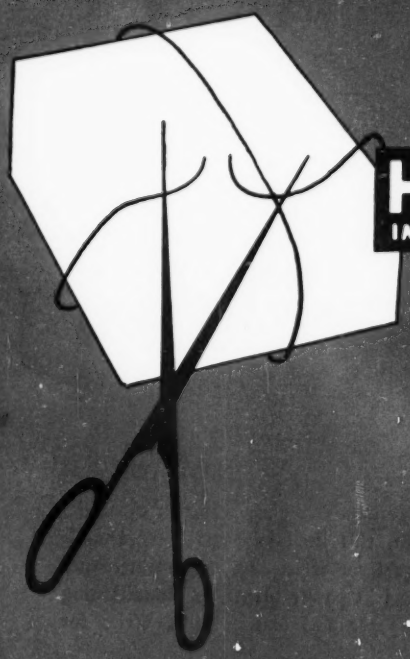
IT WON'T BE LONG NOW!



5 BIG DAYS IN 1954
APRIL 26, 27, 28, 29, 30

at the AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTIC CITY

we're "taking off the wraps" to reveal some impressive new developments, and materials, for



HFL IMPROVED

LOOM PARTS

To enable you to meet the new competition by

IMPROVING THE QUALITY
of your weave room production, and

REDUCING YOUR COSTS
by cutting to a minimum the downtime of your looms, we are showing at the Atlantic City Exhibition a number of basic loom parts representing HFL-IMPROVED design, construction, and material.

For 67 years we have been improving on the design and physical properties of loom parts. That's our only business. We feel that we know something about it!

Probably your mill is already our customer because, today, HFL Improved Loom Parts are used in the weaving of cotton, wool, silk and synthetics in mills throughout the United States, Canada and 20 other countries.

We'll be looking for you in Atlantic City!

HFL
IMPROVED LOOM PARTS

ESTABLISHED 1887
H. F. LIVERMORE CORPORATION

EXECUTIVE OFFICES & PLANT
BOSTON 34, MASS.

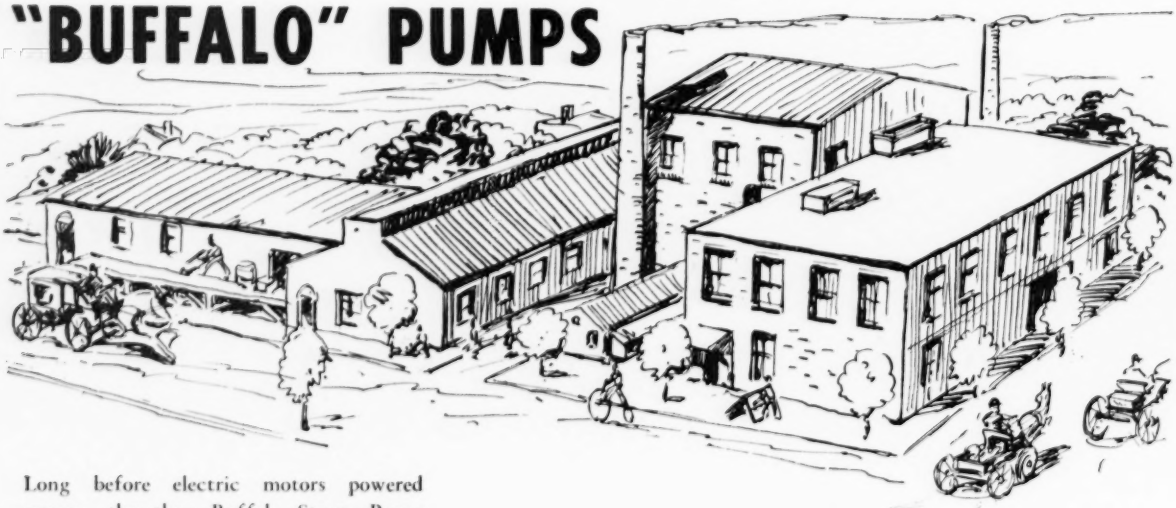
SOUTHERN DIVISION
GREENVILLE, S. C.

SOUTHWESTERN DIVISION
DALLAS, TEXAS

Since "WAY BACK WHEN"...

Industry has depended on

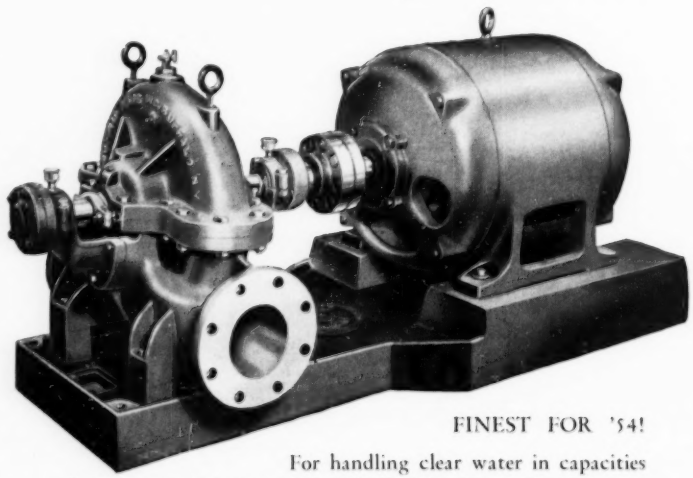
"BUFFALO" PUMPS



Long before electric motors powered pumps, the then Buffalo Steam Pump Company was already building some of industry's most respected pumps. Respected, because "Buffalo" engineers and craftsmen started out to build pumps that *wouldn't* need a lot of attention and repairs—and would still be on the job twenty and thirty years later.

They've adhered to that idea ever since—passing their know-how on to their followers—always keeping close contact with requirements in the field—making never-ending improvements. Today, you can pick a "Buffalo" Centrifugal Pump with the full assurance that it embodies every known feature for the most efficient and trouble-free service possible.

Anyone can build a pump that will move a liquid. Yet, doesn't it make sense to buy the pumps of a manufacturer who has specialized in quality pumps, and pumps alone, since "way back when"?



FINEST FOR '54!

For handling clear water in capacities from 10 to 14,000 gpm, this Buffalo Type "SL" Double Suction Pump has no equal for efficiency, easy maintenance and long life. Widely used in power plants, air conditioning and air washer service, paper and textile mills. Write for Bulletin 955-P.

"Buffalo" PUMPS

BUFFALO PUMPS, INC.

175 Mortimer St. Buffalo, New York

Subsidiary of Buffalo Forge Company

Canada Pumps, Ltd., Kitchener, Ont.

Sales Representatives in all Principal Cities.

A BETTER CENTRIFUGAL PUMP FOR EVERY LIQUID

A WIDE VARIETY OF PRODUCTS *from* A WIDE VARIETY OF MATERIALS

REINFORCEMENTS
INSULATION
CLOTHING INTERLINING
UPHOLSTERY BACKING
FILTERS

SYNTHETICS -NATURAL FIBERS	SPECIAL MATERIALS	COARSE FIBERS
Acetate	Asbestos	Jute
Rayon	Rock Wool	Hair
Nylon	Glass	Sisal
Cotton		Reclaim Tire Cord
Wool		

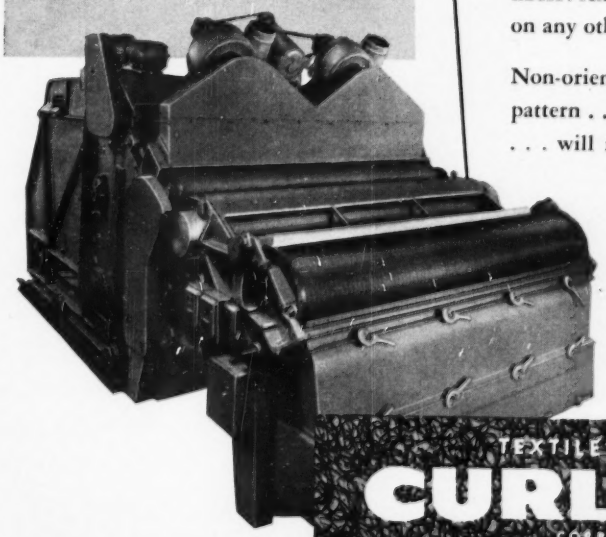
Many new and unusual products are being developed

Because of the unique way the Rando-Feeder and Rando-Webber economically form a *Random Web* from almost any type of waste or staple fiber, many new products are now being developed . . . products unheard of a few years ago. Imagine making a web from hair, glass, asbestos or cocoanut fibers! All of these materials cannot be handled successfully on any other equipment.

Non-oriented webs have no crosswise, vertical or horizontal pattern . . . have strength in all directions . . . are resilient . . . will resist delamination and splitting. Webs made by Rando-Feeder and Rando-Webber can be dry processed, needle punched, quilted, felted and heat sealed.

Send us samples of your fibers. We will make webs for test purposes. Write for details.

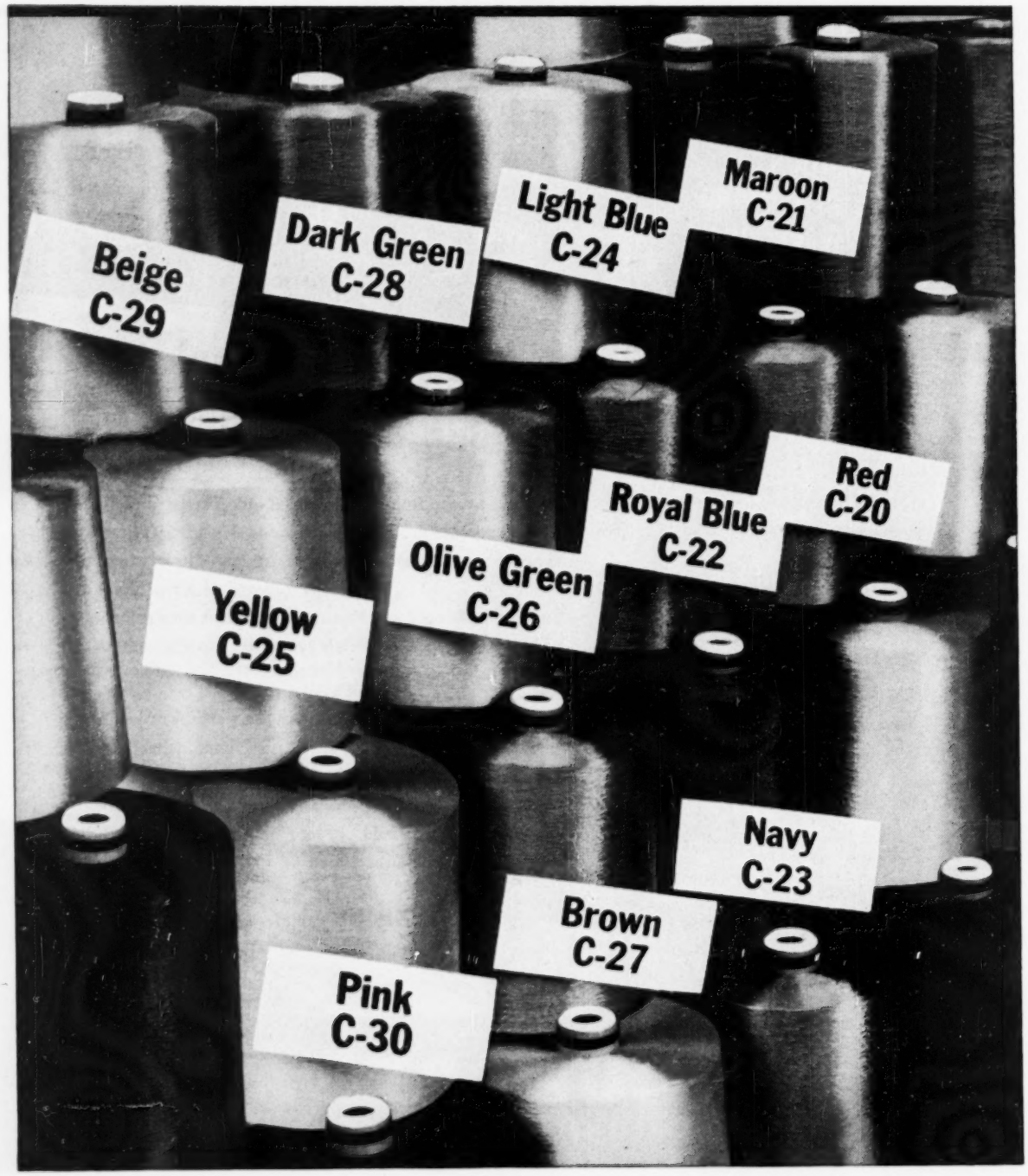
RANDO-FEEDERS and RANDO-WEBBERS
AVAILABLE IN 3 SIZES
Now you can make Random Webs 40", 60" or 84" wide . . . up to 2" thick.



SEE OUR EXHIBIT AT ATLANTIC CITY APRIL 26 - 30 BOOTH 812-813

TEXTILE DIVISION
CURLATOR
CORPORATION
EAST ROCHESTER, NEW YORK

ANNOUNCING A NEW RANGE OF IN CELAPERM* ACETATE!



FASHION-APPROVED COLORS

Celanese uses new pigments to achieve new colors—new fastness standards.

In the past few seasons Celanese* Celaperm yarn has helped to revolutionize old concepts of color fastness in acetate.

But Celanese textile research continued to seek for still more serviceable colors; for universally usable shades. Celanese now announces another giant stride forward in color pigmented acetate.

In addition to developing a new group of colors—selected with infinite care and in cooperation with a host of color experts—*Celanese has developed a group of colors that are still faster than those previously available.*

Eight shades which have proved to be of fundamental fashion importance are being continued. Eleven new colors in Celaperm present the most exciting single opportunity for new textile styling and promotion. This range has been developed with ALL suitable end-markets in mind.

Celanese is ready to show what has and can be done with Celaperm's infinite combinations —producing new pattern and texture with color and color, color and white, color and black.

Contact your nearest Celanese sales office for information about these new colors. Celanese Corporation of America, N. Y. 16; Boston, Mass.; Camden, N. J.; Charlotte, N. C.

The following new colors are available for January-February delivery:

Red C-20
Maroon C-21
Navy C-23
Royal Blue C-22
Light Blue C-24
Olive Green C-26
Yellow C-25
Brown C-27
Pink C-30
Beige C-29
Dark Green C-28

The following continued colors are available for spot delivery:

Grey C-7
Blue N-957
Blue Green N-948
Yellow Green N-937
Grey N-935
Black 16
Navy N-944
Green C-3

All orders on these discontinued colors are subject to prior sale.

Red N-988
Red N-945
Blue N-383
Green N-974
Brown N-956
Navy C-10
Blue N-950
Yellow N-951

Celanese*

CELAPERM*

the acetate yarn with the "sealed-in" color

*Reg. U.S. Pat. Off.

For further information use Handy Return Card, Page 184

NO. 2 OF A SERIES

FACTS NOT RUMORS

about... SACO-LOWELL GWALTNEY SPINNING

THE ONLY REVOLUTIONARY IMPROVEMENT IN SPINNING IN 100 YEARS

A. M. SMYRE MANUFACTURING CO. IS "VERY WELL SATISFIED" WITH SACO-LOWELL GWALTNEY SPINNING

THIS LETTER FROM D. H. CAUBLE SPEAKS FOR ITSELF

A. M. SMYRE Manufacturing Company
GASTONIA, NORTH CAROLINA

September 18,1953

Mr. W.P.Lowell, Vice-Pres.
Saco-Lowell Shops
60 Batterymarch Street
Boston 10, Mass.

Dear Mr. Lowell:

Just thought we would write and let you know that we are very well satisfied with the results obtained from our new SG-1 Spinning frames.

These frames have enabled us to make a more even yarn,also a yarn with a high break factor. We are showing substantital savings on spinning due to the better running qualities and large packages, and have also realized considerable savings in our winding cost per pound.

Yours very truly,

A.M. SMYRE MANUFACTURING COMPANY

D.H. Cauble

D.H. Cauble, Superintendent

THESE ARE THE FACTS

	The New SG-1	The Old Regular
Count of the Yarn	20/1	20/1
Length of Yarn Traverse Ring Size	10.62"	5.88"
Weight of Yarn on Bobbin	3.0"	2.0"
Yards of Yarn on Bobbin	12 oz.	3.2 oz.
Unwinding Time at 500 yds./M	12,600	3,360
Bobbins creeled per Spindle per Hr. at Winder	25.2 Min.	6.72 Min.
Spindle Speed	2.39	8.93
Traveler Speed	7,920	7,920
Speed of 1" Front Roll	6,220 Ft./M	4,146 Ft./M
100% Production per Spindle per Hr.	170 R.P.M.	170 R.P.M.
Turns per Inch of Twist	.053 Lbs.	.053 Lbs.
Doffing Cycle	14.9	14.9
Estimated Efficiency	14.73 Hrs.	4.14 Hrs.
Net Production per Spindle Per Hr.	96.1	91.2
Increase for SG-1	.0509 Lbs.	.0483 Lbs.
	5.4%	

Plus . . .

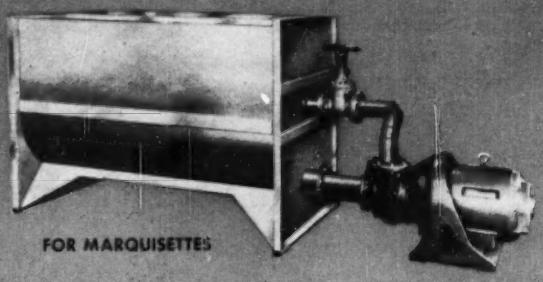
MORE EVEN YARN
HIGHER BREAK FACTOR
AND A LOFTINESS
THAT RESULTS IN A
"REAL QUALITY" YARN.

SACO-LOWELL

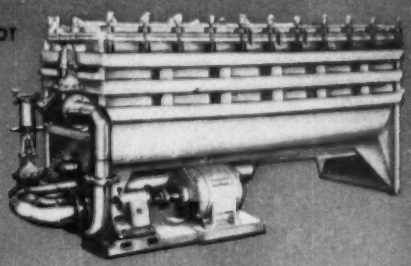
60 BATTERYMARCH STREET, BOSTON 10, MASS.

Shops at BIDDEFORD and SACO, MAINE, and SANFORD, N. C.

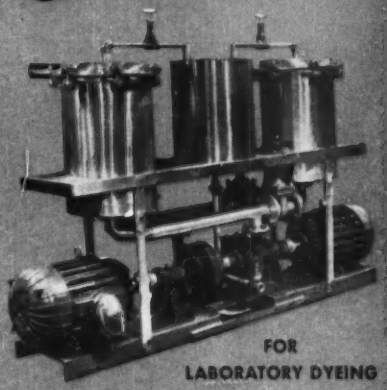
SALES OFFICES: CHARLOTTE • GREENSBORO • GREENVILLE • ATLANTA



FOR MARQUISETTES



FOR TRICOT



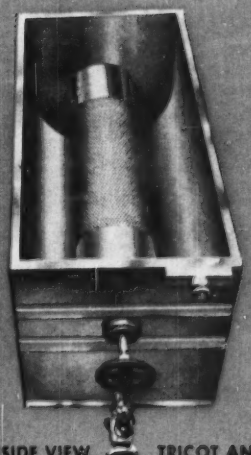
FOR LABORATORY DYEING

Something NEW in our line

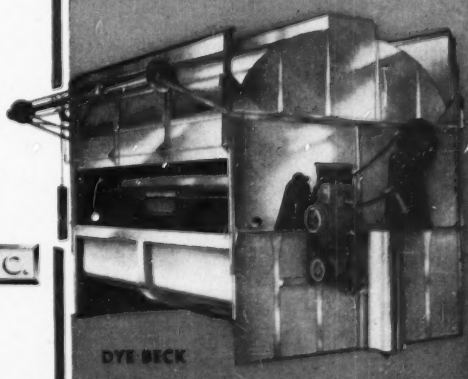
of piece goods dyeing equipment...

A DYE BECK FOR CARPETING IN OPEN WIDTHS

We are pleased to announce the addition to our line of piece goods dyeing equipment... a dye beck especially designed for the dyeing of carpeting in open widths. This machine, which is made in all sizes for all widths of carpeting, has been thoroughly tested for several years in a number of rug plants. Due to special design of extra depth and false bottom, maximum circulation is assured for level dyeing. Burlington Engineering Co., Inc., Graham, N. C. Phone 6-4478, Burlington, N. C.

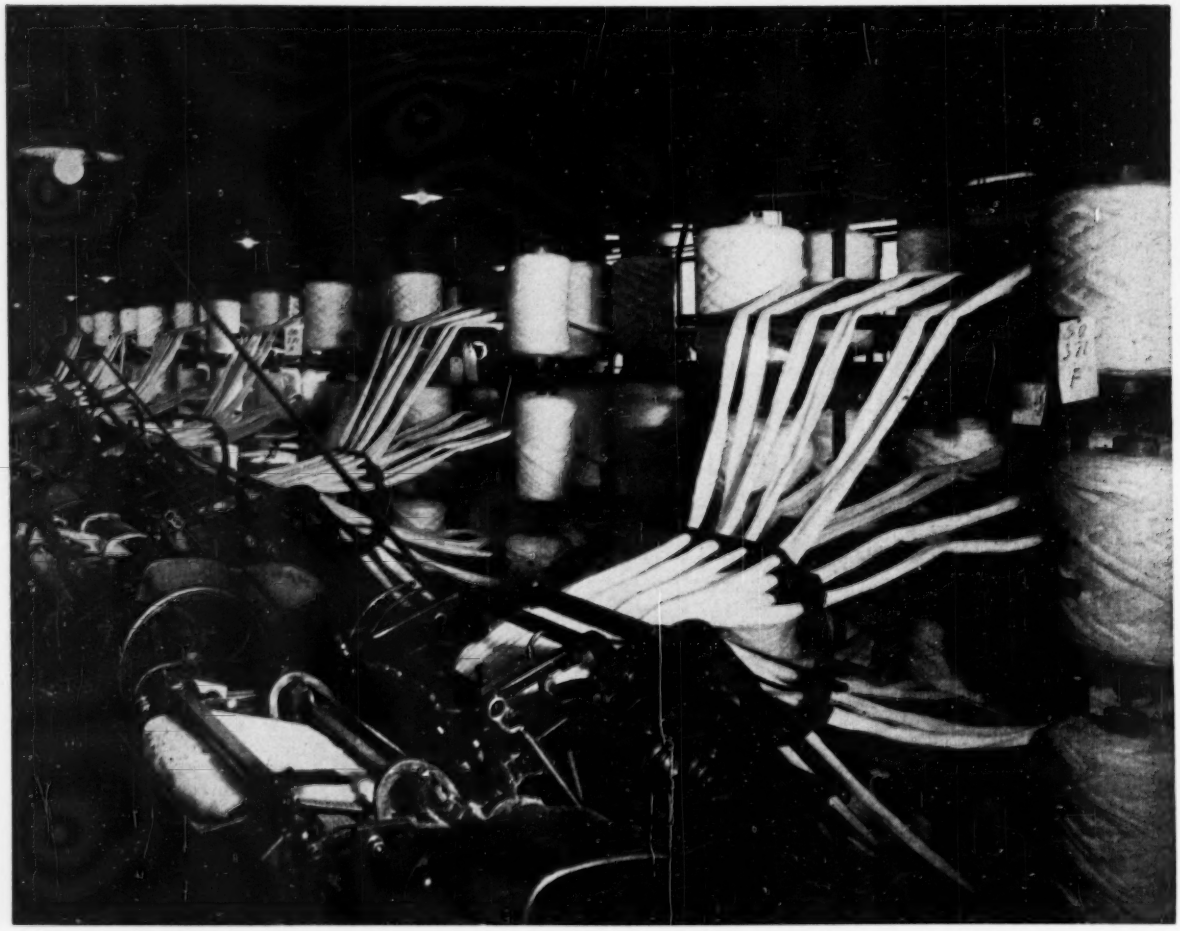


INSIDE VIEW TRICOT AND MARQUISETTE MACHINES



DYE BECK

BURLINGTON ENGINEERING CO., INC., GRAHAM, N. C.



Good Buy Forever

SCORES of southern textile mills have found, from long experience, that Standard Oil Lubricants are *outstanding* in quality and uniformity —and can be depended upon to save time and money, reduce downtime, and speed production . . . Whatever your lubrication requirement may be, there's a Standard Oil Lubricant "tailored" to fit your need—designed to do *your particular job* with speed, economy and efficiency . . . With long experience in serving the textile industry, our engineers are specialists in textile machinery lubrication, and have behind them the largest facilities for testing and research in the world. These facilities are available to tackle *your* problems where they involve a new or unusual lubricant application.

Standard Oil Company
(KENTUCKY)

STANDARD OIL
LUBRICANTS

Cut Costs still further!

with the LOAD-GRAB and HYSTER YC-40

(Capacity 3000-4000 lbs.)

The Hyster 40 and Load-Grab has proved to be the textile industry's most effective tool for reducing cost of materials handling in warehouses, boxcars and close quarters. The Load-Grab, pioneered and developed by Hyster®, is designed to handle up to three bales at a time, holding them vertically or horizontally. The Hyster 30-40 is an entirely new lift truck with a 35 HP *water-cooled* industrial engine. Call your Hyster Dealer—let him show you how a Hyster Truck and Load-Grab can save you money ...or write for details to:

HYSTER COMPANY

2902-57 N. E. Clackamas St.....Portland 8, Oregon
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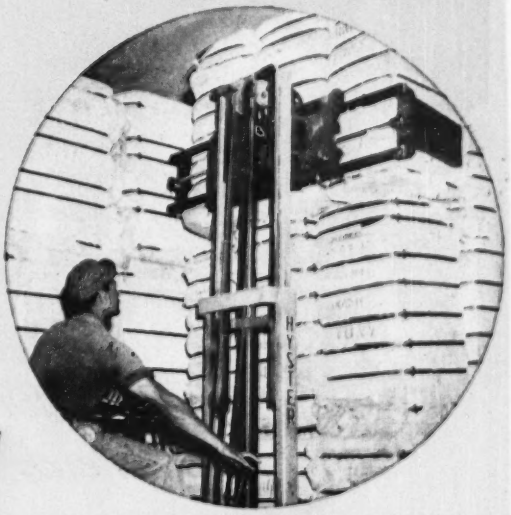
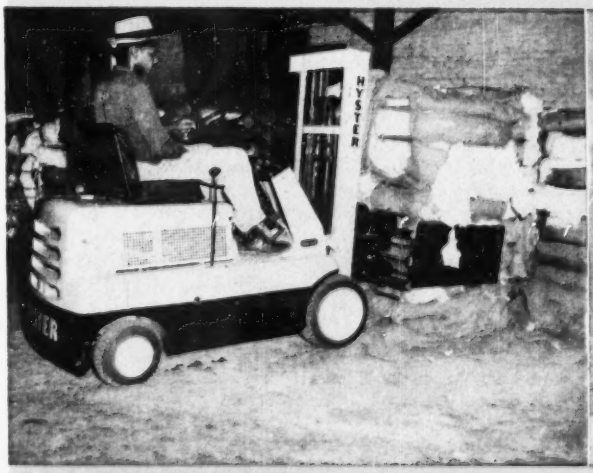
FOUR FACTORIES: Portland, Oregon; Danville, Illinois; Peoria, Illinois; Nijmegen, The Netherlands.

THERE'S PROFIT IN HYSTER POWER

MANEUVERS EASILY IN CLOSE QUARTERS



LOAD-GRAB PERMITS QUICK STACKING WITHOUT PALLETS



GRIPS ONE, TWO OR THREE BALES

HIGH MANEUVERABILITY IN BOXCARS

YOU NEVER SAW SUCH SPEED BEFORE...

this new "STOP-MOTION" shuts off the loom for broken ends, loose ends, tight ends...

It's *brand new!* We call it the B. L. T. Warp Compensator Stop Motion because a Broken, Loose or Tight end halts the machinery automatically. It can be added to any model Kidde Warp Compensator regardless of the year of manufacture.

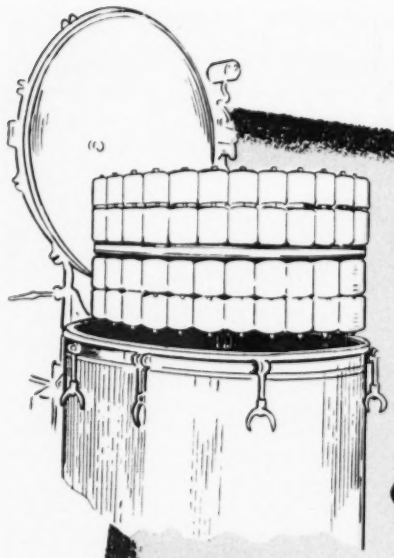
The B. L. T. Stop Motion in combination with the Kidde Warp Compensator will give you smooth, even beams, preventing shiners, stressed yarns, lost ends, crushed or warped beams by allowing you to control yarn tension with accuracy.

This may be the answer to your tension problems. Remember, more than 500 textile mills are now using Kidde Tension Compensators.

Write today for full information.

Kidde

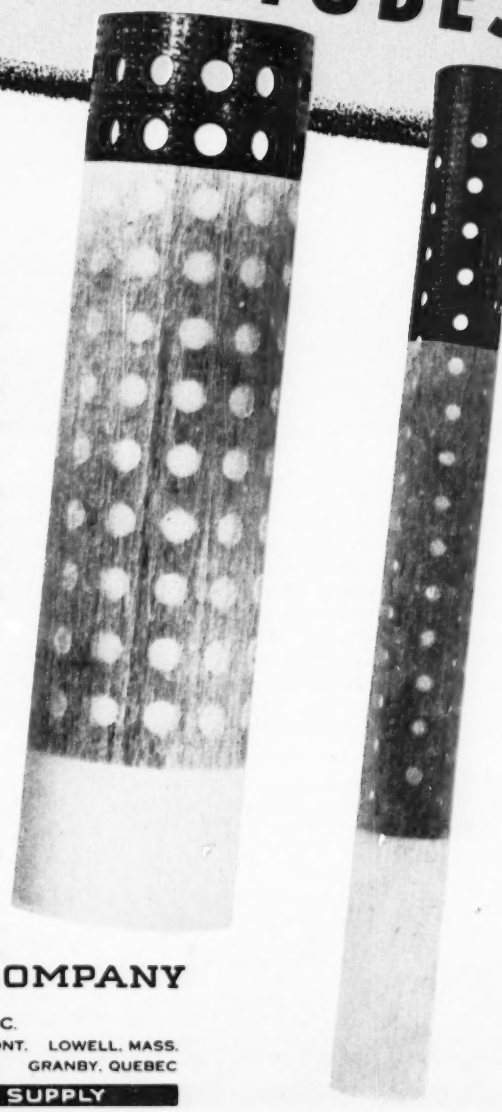
Walter Kidde & Company, Inc.
190 Main Street, Belleville 9, N. J.
Walter Kidde & Company of Canada, Ltd., Montreal, P. Q.



dye CLEANER and BETTER by using SONOCO DYTEX® TUBES

WITH PLASTAVON SLEEVE

The Sonoco Dytex Tube, with Plastavon Sleeve, is a proven one-time-use yarn carrier for all standard forms of package dyeing. The sleeve breaks up jet action to allow more uniform distribution throughout the entire package of yarn and reduces slippage in primary winding. Standard sizes 5/8" I.D. x 6 3/4" long and 1 5/8" I.D. in varying lengths. Also special sizes.



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SONOCO PRODUCTS COMPANY

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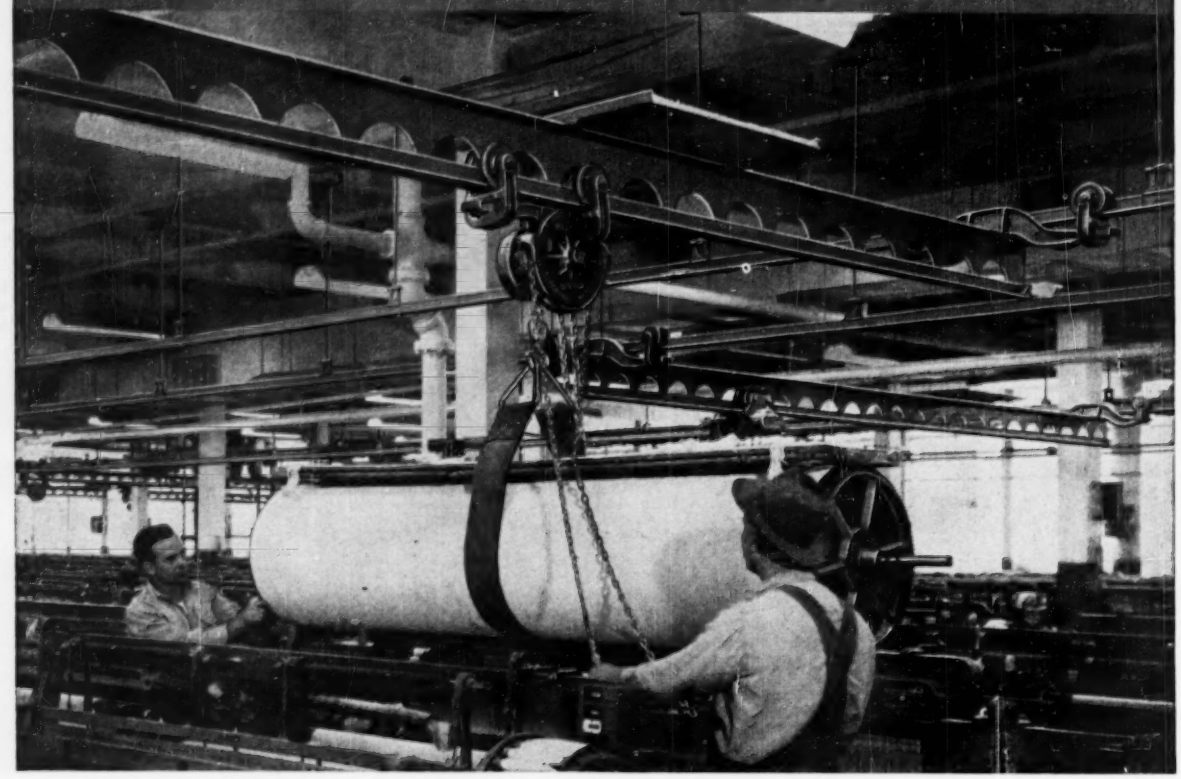
DEPENDABLE SOURCE OF SUPPLY

The Fast, Safe, Efficient Way to

HANDLE 24" AND 30" BEAMS IN THE WEAVE ROOM



Because of large economies resulting, textile mills are rapidly going from the old 18" standard to 24" and 30" diameter beams. This means heavy beams with harness — often running 1000 to 1500 pounds — far too cumbersome to handle manually with old-time floor dollies. It also means sizes larger than shaft alleys in most weave rooms will accommodate.

The only natural and obvious solution to the handling of such large beams in the weave room is the use of simple, inexpensive Cleveland Tramrail cranes, or track and switch systems. Thereby, heavy beams can be easily moved overhead to any loom by one man. Aisle widths need not be changed. The same crane that places a beam in a loom removes and transports the cloth.

Efficient storage racks can be used with Cleveland Tramrail systems, permitting orderly storage of beams, three or more high. Any beam can be selected without disturbing others and delivered directly to any loom without rehandling.

Safety is improved tremendously when Cleveland Tramrail is provided. Hernias become practically non-existent. Injury to beams is greatly reduced. Floor damage is minimized.

GET THIS BOOK!

BOOKLET No. 2008. Packed with valuable information. Profusely illustrated. Write for free copy

CLEVELAND TRAMRAIL DIVISION
THE CLEVELAND CRANE & ENGINEERING CO.
2853 East 287th Street, Wickliffe, Ohio.

CLEVELAND TRAMRAIL
OVERHEAD MATERIALS HANDLING EQUIPMENT

Continuous Dyeing . . .

Delivery end of Butterworth Continuous Dyeing Range. Washer illustrated has eight 4-ton squeezes and a final 8-ton squeeze, foreground.

. . . from Pigment Padder to Final Squeeze

If you are doing conventional continuous reduced or pigment dyeing, the Butterworth Continuous Dyeing Range will cut your costs 10% to 35% on both vat and sulphur colors. And you will get deep shades, well controlled throughout the run.

If you are using slow, one-step-at-a-time vat dyeing methods, the Butterworth Continuous Dyeing Range will do the work of 24 jigs — with ⅓ the floor space, 40% of the labor cost, and big savings in chemicals and dyestuffs.

A complete 2-stage Butterworth Continuous Dyeing Range includes two pads, a hot flue dryer, a steamer and a compartment washer. It makes continuous dyeing possible on sulphurs, indigisols, and naphthols as well as vat colors.

Let us give you facts on mill installations successful for five years and more. Write today.

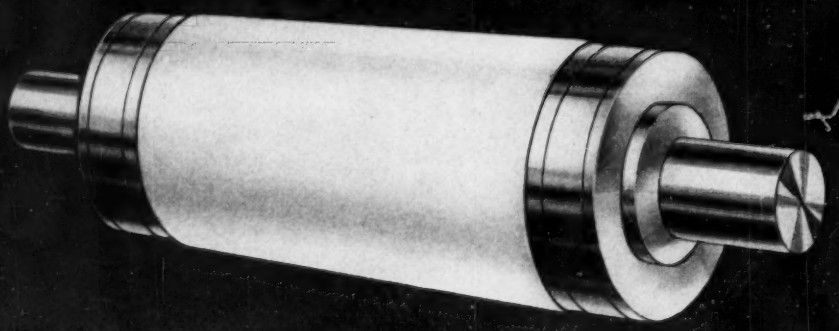
H. W. BUTTERWORTH & SONS CO.
Bethayres, Pennsylvania
1211 Johnston Building, Charlotte, North Carolina
187 Westminster Street, Providence, Rhode Island

Machines for Bleaching, Boiling-Out, Dyeing, Mercerizing, Finishing and Embossing : : Pot Spinning Machines for Synthetic Fibers : : Calender Rolls : : Tenter Chains

TEXTILE MACHINERY AMERICAN EXHIBITION ASSOCIATION
ATLANTIC CITY · APRIL 26-30 1954

BUTTERWORTH

"HOLYOKE" CALENDER ROLLS



HOLYOKE MACHINE COMPANY

CALENDER ROLLS for the PAPER and TEXTILE INDUSTRIES
WATER FILTRATION EQUIPMENT
HOLYOKE, MASSACHUSETTS

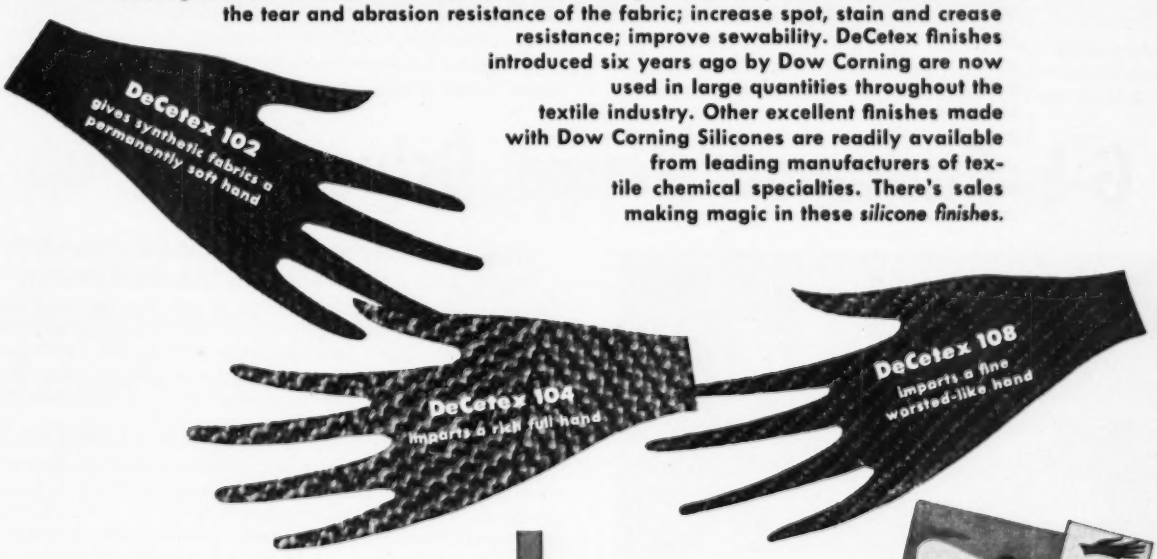
DOW CORNING

silicone finishes

IMPART A *Durable* HAND . . . SOFT AS SILK

OR CRISP AS THE FINEST WORSTEDS

Textile Finishes made with Dow Corning Silicones are the most durable of all water repellent finishes; impart a desirable and equally durable hand to fabrics woven of synthetic fibers or blends. For example, finishes made with Dow Corning Silicones can be made to last the life of the garment. They can be used to double the tear and abrasion resistance of the fabric; increase spot, stain and crease resistance; improve sewability. DeCetex finishes introduced six years ago by Dow Corning are now used in large quantities throughout the textile industry. Other excellent finishes made with Dow Corning Silicones are readily available from leading manufacturers of textile chemical specialties. There's sales making magic in these *silicone finishes*.



FIRST IN SILICONES

DOW CORNING CORPORATION

MIDLAND, MICHIGAN

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Mail coupon for more information on Silicone products for the Textile Industry.

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Please send me ☐ "What's a Silicone?" ☐ DeCetex Emulsions

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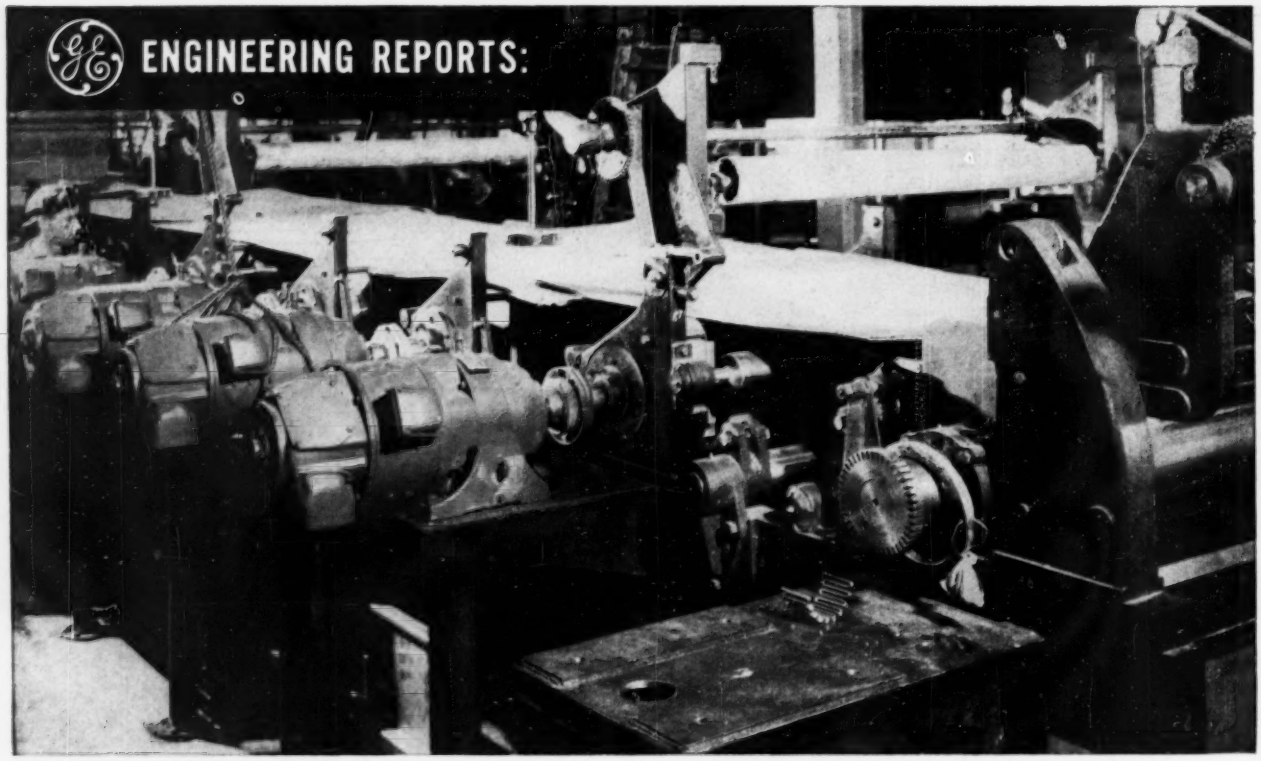
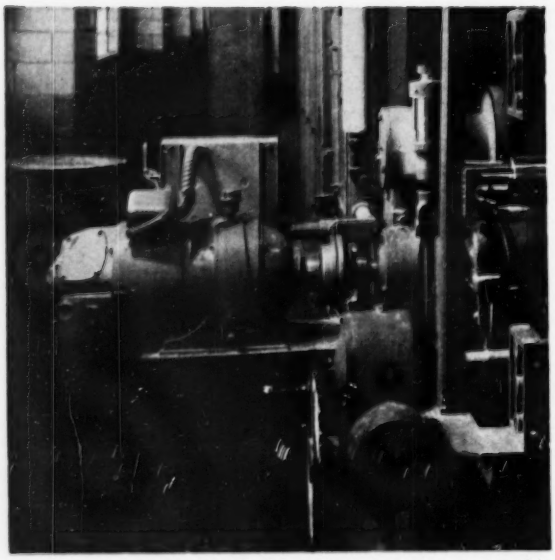
CANADA: Fiberglas Canada Ltd., Toronto • ENGLAND: Midland Silicones Ltd., London

ENGINEERING REPORTS:



EASY INSTALLATION, SIMPLE MAINTENANCE are features of this multiple-motor dyeing range at Grace Bleachery. This construction view shows several of the new three-piece G-E gear-motors being positioned. Although G-E drives such as this will operate for a long time with only routine maintenance, motors may be removed without disengaging the gears.

G-E Packaged Range Drive steps up



EASY-TO-MAINTAIN, G-E three-piece gear-motor runs this starching operation on a plisse range. This motor is only one of the many types that G.E. manufactures for the textile industry. Others include: totally-enclosed, ball-bearing loom motors; open, lint-proof motors; vertical motors for twisters and many others to meet your special requirements.

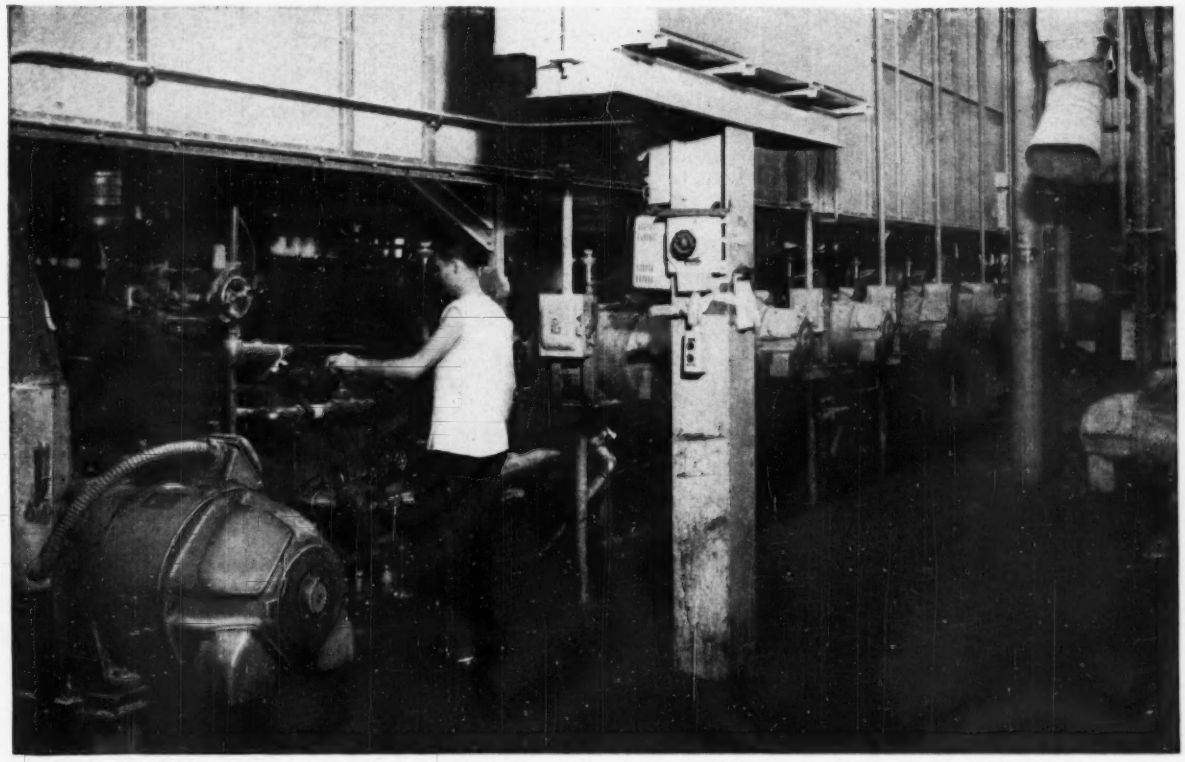
Compact drive gives Springs Cotton Mills' Grace Bleachery high speed finishing

Washing, drying, bleaching, mercerizing, dyeing—whatever your range operation may be—the General Electric packaged range drive can give you higher production per man-hour with lower maintenance costs.

Efficient co-ordination of the drive elements through centralized control is one of the factors making this increased output possible by providing accurate control of cloth tension at all operating speeds. This assures you maximum cloth uniformity with minimum supervision and thus with lower costs.

ONLY THREE STANDARD COMPONENTS make up the G-E adjustable-voltage drive system: the operator's finger-tip control station which can be installed in any convenient location; three-piece range-driving motors and their associated rheostats; and the packaged speed variator unit, containing motor-generator set and exciter, which can be located anywhere to conserve valuable range space.

YOU CAN CUT RANGE COSTS with the easy-to-maintain G-E three-piece gear-motors. They need no special mounting and may be easily removed for servicing without disconnecting the gears or removing the motor base from the foundation. Along with easy maintenance, sturdiness and smooth operation combine to assure you long life for the motor itself.



HIGH FINISHING OUTPUT of Spring Cotton Mills' Grace Bleachery is speeded by three-piece G-E gear-motors. Control system with master rheostat (on center post) provides finger-tip control of entire installation. Packaged power unit was easily located out of the range area. G.E. co-ordinated manufacture and delivery of nearly all drive equipment for this mill.

cloth-finishing output per man-hour

Check the advantages which the G-E packaged range drive can offer you:

SIMPLE TENSION CONTROL, accomplished with inexpensive compensating gates or other co-ordinating equipment

WIDE SPEED RANGES, available up to 8–1 without special equipment

CENTRALIZED CONTROL of range speed from a single location

SMOOTH, STEPLESS ACCELERATION AND DECELERATION with close speed control

EASY MAINTENANCE—motors may be removed for servicing without disengaging drive gears

DYNAMIC BRAKING for sudden stops and regenerative braking for controlled deceleration

YOU CAN PROFIT from other mills' experience. Mail coupon for additional details on G-E range drives or contact your nearest General Electric Apparatus Sales Office.

Mail this coupon for help in solving your range drive problems!

General Electric Co., Section 8654-33
Schenectady 5, N. Y.

Please send me without obligation your Bulletin GEA-5010 which gives the latest developments in G-E range drives.

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Engineered Electrical Equipment for Textile Mills

GENERAL ELECTRIC

FOR:
COTTON
SYNTHETICS
WOOL
WORSTED

Marquette Roller Bearing Spindles

with FULL-FLOATING FOOTSTEP BEARING

This mill tested a frame of Marquette Roller Bearing Spindles in 1945, and now has 32,354 of these spindles in operation. As in other mills, Marquette Spindles have been purchased on the basis of their *superior performance.* They produce MORE YARN AT LOWER COST—because they carry large packages at high speeds, with no increase in power consumption. We'll be glad to prove, through a test installation, that Marquette Spindles will give the same results in *your* mill. Contact our home office or one of our representatives.

PROTECTED BY U.S. AND FOREIGN PATENTS AND PATENTS PENDING

The Marquette METAL PRODUCTS COMPANY

CLEVELAND 10, OHIO • SUBSIDIARY OF CURTISS-WRIGHT CORPORATION

Also Manufacturers of: HYDRAULIC GOVERNORS • PRECISION PARTS AND ASSEMBLIES • WINDSHIELD WIPERS FOR AIRCRAFT
FUEL OIL PUMPS • FUEL OIL INJECTORS • ROTARY HIGH PRESSURE OIL FIELD PUMPING MACHINERY

News in Brief

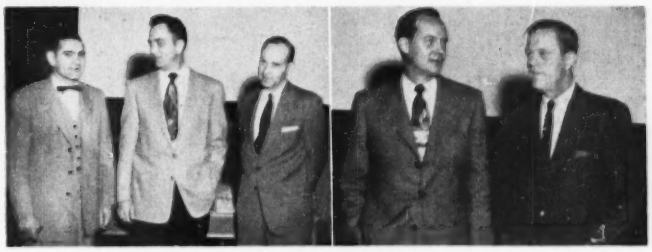
Stiffer Mill Competition. Competition is causing increasing difficulty for the following types of mills: (1) Mills without modern equipment; (2) mills which have been purchased by individuals to secure goods and yarn and who are not experienced textile men; (3) mills which have not retained sufficient earnings in the business out of the profits of recent years; and (4) mills which have not kept current with their taxes. Some mills have used tax liability as operating capital with the expectation of paying the past year's taxes out of the next year's operating profits. Source: Recent survey by National Bank of Commerce, Memphis, Tenn.

Too Much Talking. In Richmond, Va., a federal court has ruled that a woman employee of a North Carolina textile mill was discharged for talking too much and not because of union activity. The three-judge court said that there was ample evidence of the woman's "loud and boisterous talking" in the mill.

Wool Classification by Staple? Classifying wool by staple length in inches, making the length classifications more specific than those now used in grading, has been suggested by the U. S. Department of Agriculture. Present government standards for wool do not specify the staple length.

Hosiery Knitters Warned About Sweaters. High casualties will be suffered during the first year of operation among hosiery manufacturers who migrate into the full-fashioned sweater business. This warning was sounded recently by Dr. Edward B. Shils, executive secretary of the Pennsylvania District, Knitted Outerwear Manufacturers Association. Dr. Shils pointed out that merely operating a full-fashioned sweater machine is only a minute part of the actual turning out of a quality product.

Blackboard Signal for Notices. A large plant in Stuttgart, Germany draws attention of employees to new notices on the blackboard by flashing a red lamp intermittently. The lamp flashes during the first 24 hours when a new notice is posted. In this way important announcements will not be overlooked by employees.



Spoke at N. C. State Conclave

Staff Report

Several phases of management and manufacturing problems in the textile industry were discussed in papers presented at the technical sessions during the fourth annual textile conclave held at North Carolina State College in Raleigh, N. C., November 20-21.

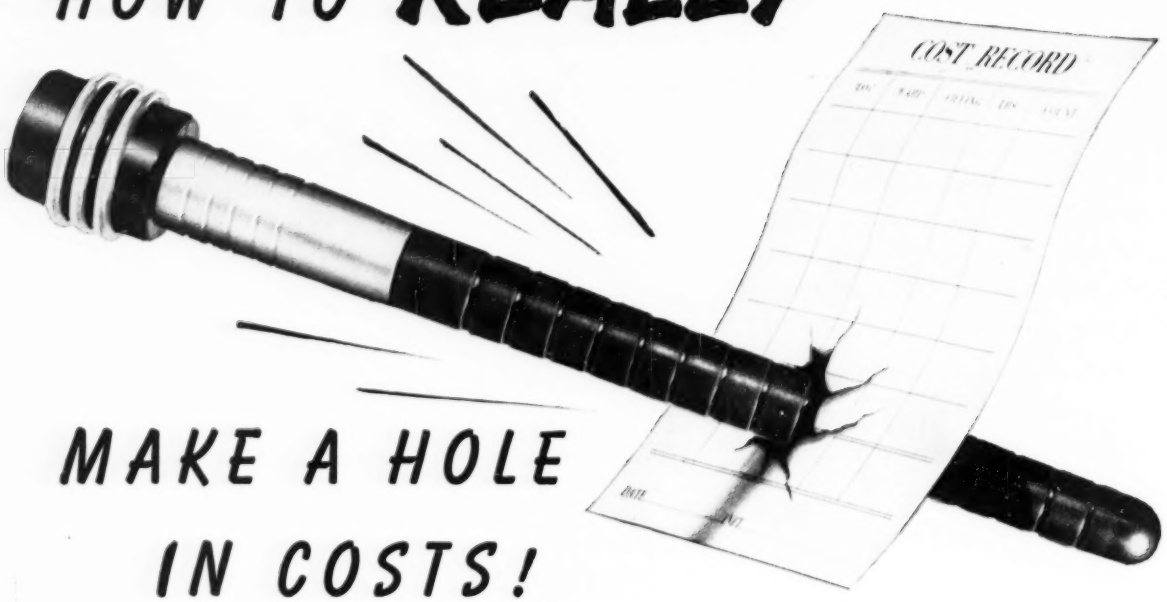
Speakers at the conclave were (left to right): **A. G. Klock,** Bigelow-Sanford Carpet Co.; **G. Dent Mangum,** N. C. State College; **Arnold Sookne,** Harris Research Laboratories; **William Bowman,** American Viscose Corp.; and **Dr. William McGehee,** Fieldcrest Mills.

The technical program was presented in the auditorium of the textile school. After each paper was presented, the speaker answered questions asked by those in the audience. The program for the two-day conclave included both social and technical activities.

Change in Cotton Buying Rules. The Cotton Committee of the North Carolina Textile Manufacturers Association, meeting recently in Pinehurst, approved a proposed change in Southern Mill Rule No. 33, making the last sentence of the rule read: "If the re-weights of the cotton show a gain in weight in excess of *three* pounds per bale over the buyer's receiving weights, the buyer shall pay the actual cost of re-weighing, otherwise seller pays same."

Human Relations Advertising. Employee testimonial advertisements in local weekly newspapers are highlighting the first commun-

HOW TO REALLY MAKE A HOLE IN COSTS!



The purchase cost of bobbins is only a tiny fraction of mill costs. But you can REALLY save on the *Cost-of-Use.* Bobbins that seat accurately, doff fast, run true, retain and deliver smoothly — these mean real savings, real protection of yarn quality. Get these continual dividends with A. P. T.— the bobbins with exclusive features, assuring PERMANENT precision and enduring life.

American Paper Tube Co.

ESTABLISHED 1898
WOONSOCKET, R. I.
GREENVILLE S C.

HUGH WILLIAMS & CO., TORONTO, CANADA

PROPERTIES OF A.P.T. ALL-PURPOSE BOBBINS

Incorporated in A.P.T. laminated-impregnated bobbins are all of the characteristics of: ideal yarn retention and delivery, crush-resistance, heat- and moisture-resistance needed for the varying requirements of HARD-TWIST NYLON, SOFT-TWIST YARNS, LOW-TWIST ACETATE, CONDITIONING TREATMENT

56 YEARS OF RESPONSIBILITY FOR EFFICIENT AND ECONOMICAL CARRIER SERVICE

Open House Builds Employee Morale

Shown above is part of the more than 5,000 who registered for plant tours during the recent Open House held by Joanna Cotton Mills Co., Joanna, S. C. According to J. L. Delany, Joanna's general superintendent, the open house provided a greater boost to employee morale than any other action the company could have taken.

ity and employee relations program launched by The William Carter Company of Needham Heights, Mass. The editorial-type advertisements began September 3, 1953, in seven local papers and feature photographs of employees followed by their personal reactions to working for Carter's.

The Guaranteed Wage. Renewed interest in the subject of the guaranteed wage has prompted the Economic Research Department to publish a study titled "The Economics of the Guaranteed Wage." This publication presents up-to-date and pertinent data on the subject. Copies at 50¢ each are available from The Chamber of Commerce of The United States, Washington 6, D. C.

Improved Acrylic Fiber. An improved Acrilan acrylic fiber has been developed in the research laboratory, with findings confirmed on pilot plant and production equipment. The fiber has undergone satisfactory initial evaluation on full-scale mill equipment. The improved process for Acrilan production has overcome fibrillation and brittleness, and dyeability features have been further improved. Also, elongation has been greatly increased while retaining tensile strength, according to an announcement by The Chemstrand Corporation.

Stocking Smugglers Caught. Frankfurt customs authorities recently succeeded in breaking up a large nylon stocking smuggler ring. Large quantities of nylon stockings were brought by air to western Germany from the USA. Through a false declaration, the last shipment was discovered, and customs authorities were able to identify the receivers and make a number of arrests. Cars belonging to the smugglers as well as 1,200 dozen nylons were taken into custody.

Special Course on Statistics. During the spring quarter of 1954, the Institute of Statistics of the University of North Carolina will sponsor a special program of

course work, lectures, and seminars on statistics for research engineers, physicists, and chemists. The objective of this program is to provide an opportunity for industrial research workers to acquire a working knowledge of modern statistical concepts and techniques. Emphasis will be on the efficient design of experiments and the analysis of data therefrom. Details may be secured from the Institute of Statistics, North Carolina State College, Box 5457, Raleigh, N. C.

Spun Rayon Handkerchief. A new spun rayon handkerchief, trade named Dur-Ray, is soft and strong. These handkerchiefs were placed on the market in November to compete with imports. The handkerchiefs were introduced with the slogan: "It softens the blow."

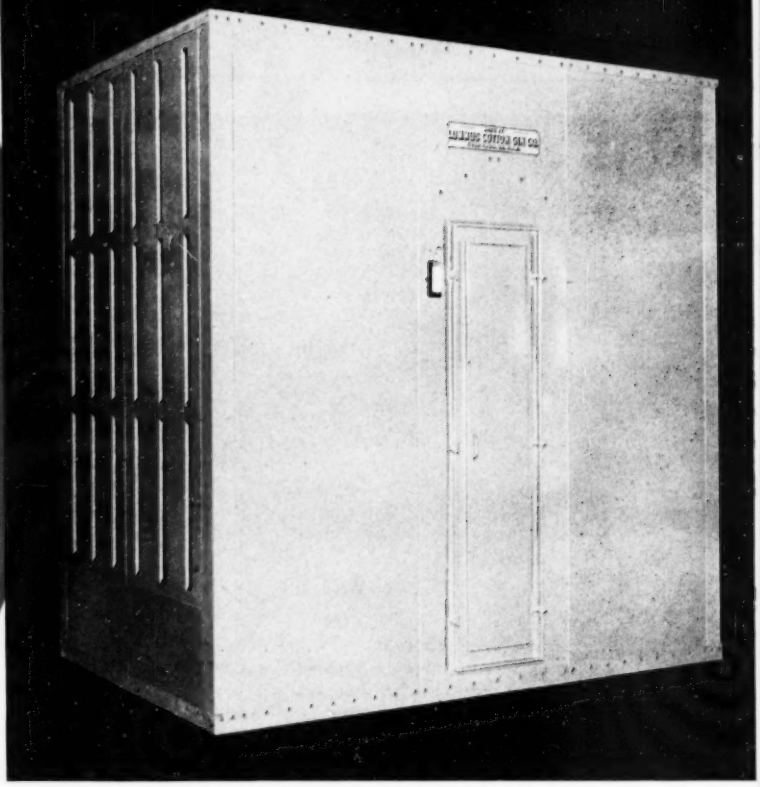
Stamp Honoring Textile Industry in Canada. A new issue 50-cent stamp honoring the Canadian textile industry was issued on November 2, 1953.

British Study Cotton Selling Methods. Representatives of the British textile industry have arrived in this country for a first-hand study of promotion programs and techniques employed in America to sell cotton products.

Wool Committee Recommends Marketing Survey. A survey of the wool marketing pattern to determine areas that can be made more efficient and effective was the top recommendation of the Wool Research Advisory Committee in a recent annual meeting. The survey would cover preparation of fleeces on farms and ranches and follow the wool through the usual marketing channels, the processing industry, the manufacturing industry, and continue through the retailing of wool and woolen products.

NYQMPA Reactivated. The New York Quartermaster Purchasing

CLEANS AIR *Completely Clean*



THE LUMMUS AIR FILTER FOR TEXTILE MILLS

This cleaner really takes all the fly and dust out of the air. For example, the size illustrated will completely clean 8,000 cubic feet of air per minute, yet it occupies only 9′ x 5′6″ of floor space, and is only 8′11″ high.

Such performance is due to the use of non-woven fabric which is far more porous than cloth or felt, and yet has such fine texture that it traps the most minute particles of dust. The extreme permeability of this material gives great filtering capacity with low back-pressure.

We will be glad to supply full information

Made by **LUMMUS COTTON GIN CO.** Columbus, Ga.

Sold and Installed by **AldricH MachinE Works** Greenwood South Carolina

Agency, 111 East 16th Street, has been reactivated. Brig. Gen. R. P. Hollis has been appointed commanding general.

French Machine Imports Duty-Free. French customs duties on imports of American and foreign textile machinery, excluding spare parts, have been suspended indefinitely. This decree restores duty-free imports of foreign textile machinery following the expiration and non-renewal of a similar decree in December of 1952.

Union Labor Gets Hosiery Wholesale. The American Federation of Hosiery Workers (AFL) has launched a campaign to make union-label hosiery available at wholesale prices to members of every union in the country. The plan is now in operation in Philadelphia and New York on a "pilot" basis with "great success," according to the AFHW.

Phi Psi Award at Auburn. Phi Psi, honorary textile fraternity, has initiated a freshman award for scholarship at Alabama Polytechnic Institute, Auburn, Ala. The freshman having the highest scholastic average in textiles for the three consecutive quarters will be honored. A certificate of merit will go to the scholarship leader, and a plaque bearing his name will be placed in the textile building. Names of subsequent winners will be added, James S. Murray of Griffin, Ga., president of the organization, said.

Fitted Sheets of Nylon Tricot. Glen Raven Knitting Mills, Inc., New York, N. Y., is making fitted bedsheets in their two-bar tricot fabric of 30-denier opaque nylon yarn. The fabric is exceptionally soft and pleasant to the touch, according to observers.

Quality Control Meet at N. C. State. A program of technical papers covering textile manufacturing, elementary and advanced statistical quality control, and operations research is scheduled for the annual meeting of the Textile Division, American Society for Quality Control, to be held at the School of Textiles, N. C. State College, in Raleigh, February 4-6 inclusive, 1954. Supplementing the technical program will be mill tours, exhibits, a banquet, and entertainment.

Behavior of Protein Fibers. The tensile behavior of some protein fibers, including wool, mohair, human hair, casein, Vicara, and silk has been included in a report by the QM and is available from the Commerce Department. The report indicates the "excellent recovery" of wool even after high stresses and strains and its enhanced recovery when wet as well as the mobility of wool single fibers in the yarn structure.

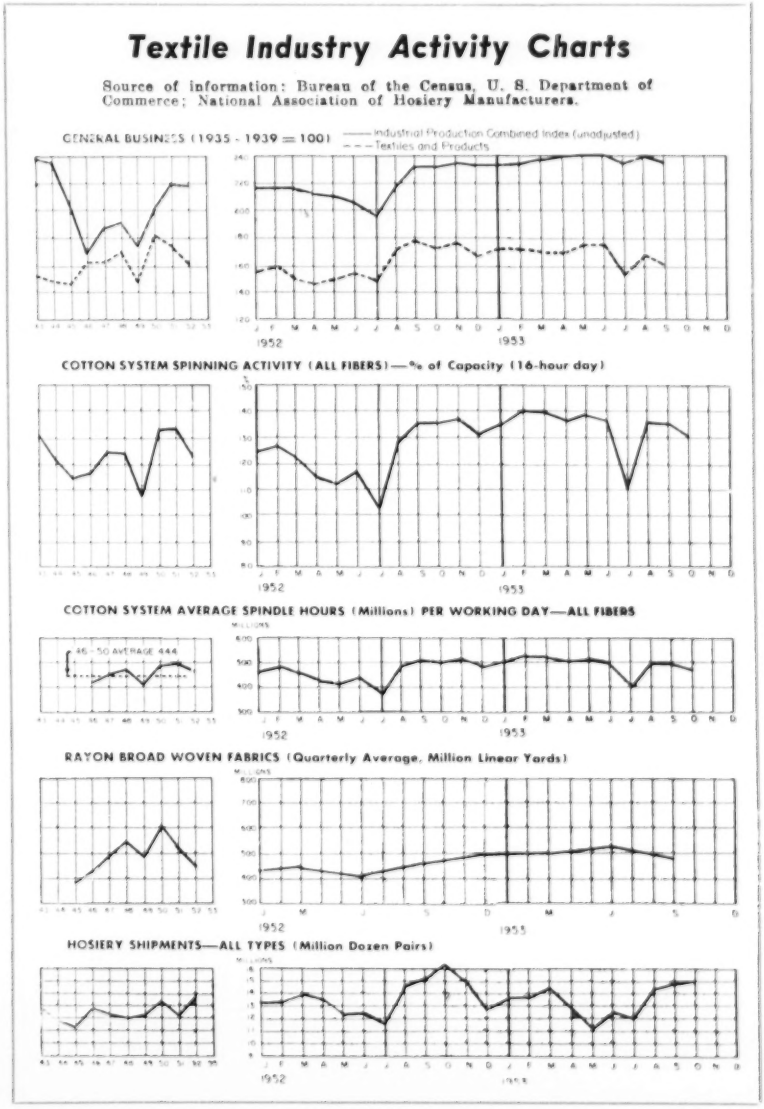
News in Brief

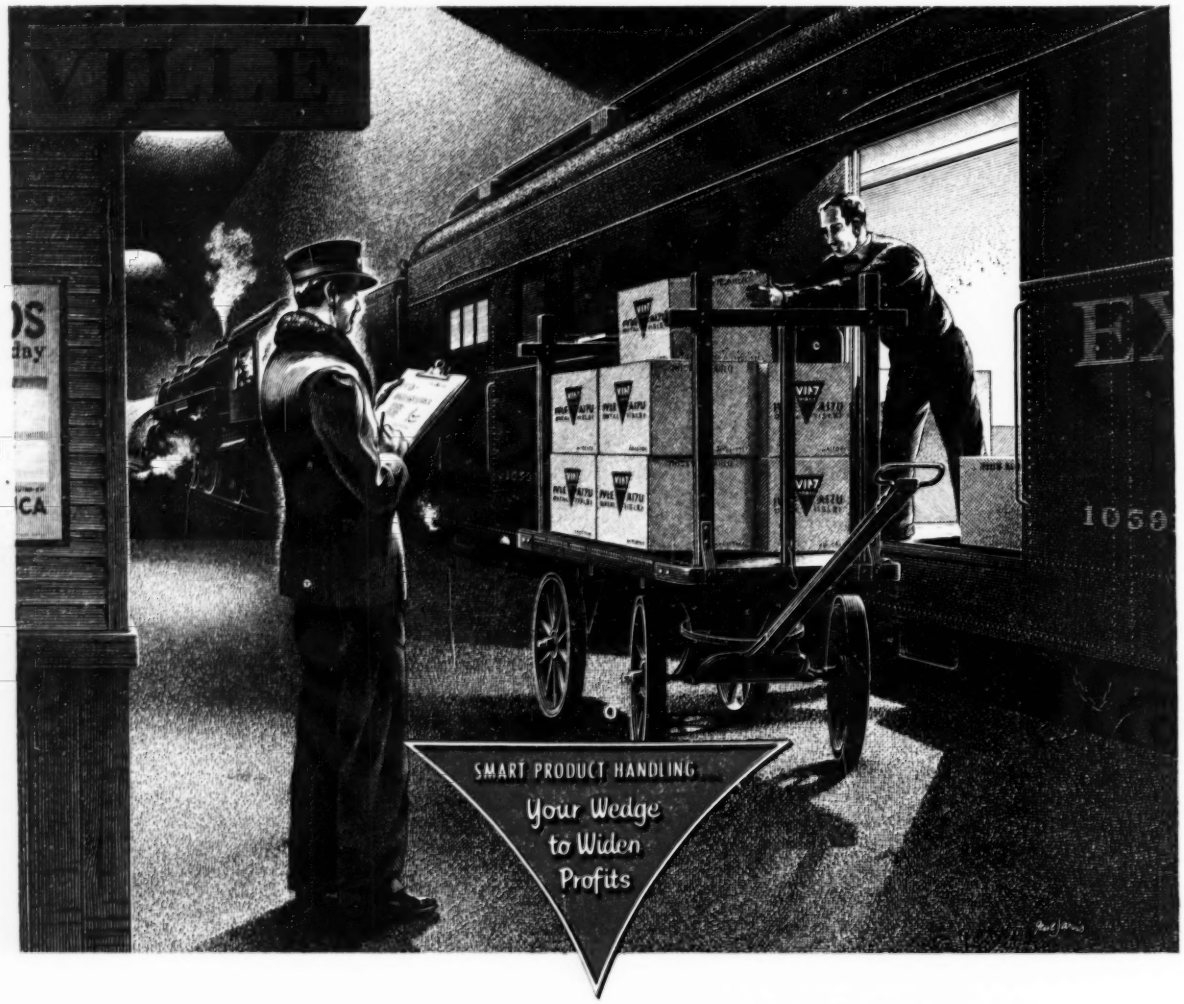
When and How to Buy Machinery. The real problems in replacing machinery and equipment are when and how to buy, rather than what to buy. S. D. Maddock, president of C.I.T. Corporation, said recently that replacement too long deferred creates too great a gap between installed capacity and capacity which would be possible with new machinery. However, he

(Continued on page 191)

Textile Industry Activity Charts

Source of information: Bureau of the Census, U. S. Department of Commerce; National Association of Hosiery Manufacturers.





The Damage Prevented By Gaylord Boxes Is Clear Profit For You

When you comb your operations for places to cut costs, take a long look at damage claims. The actual claim is only the beginning—it sets off a chain reaction of confusion that cuts into what should have been your profit.

Many manufacturers are discovering the profit advantages of reducing damage claims through the extra protection of Gaylord boxes.

The Gaylord quality that assures you this added protection comes from new developments in tougher fibre board, stronger designs and precision accuracy in manufacture . . . all built into every Gaylord box to protect your profit, as well as your product.

For information and cooperation, phone your nearby Gaylord office.

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AN EXECUTIVE Views

THE NEWS IN TEXTILES

Prepared by a man who is closely identified with the textile industry.

Better Times Ahead? When?

THE TEXTILE industry appears to be becalmed in what might be called the "horse latitudes." In case you are not nautically inclined and are ignorant of this term, we shall give you a further explanation. The horse latitudes, says the *Encyclopaedia Britannica*, are "the zones of high atmospheric pressure with calms and variable breezes along the polar edges of the belt of the trade winds."

If this does not describe the textile industry, we don't know what does!

In case you are wondering how we happened to know about "horse latitudes," we hasten to say that we find the *Encyclopaedia Britannica* more interesting reading at times than some of the balance sheets and other economic literature which comes across our desk. If you find yourself becoming bored with two-price systems for cotton, export subsidies, and dividends being passed up by various corporations, try reading a good, solid encyclopaedia. Or better still, why not go to the ball game?

Be that as it may, however, the textile industry is in the doldrums. From the standpoint of employment activity, spindle activity, and the various other indices, there is nothing to be worried about, but profit-wise, there is a different story. The most recent federal figures show that textile earnings for the second quarter of 1953 were 2.5¢ on each dollar of sales. This, of course, is not much to boast about.

Some have been hoping that the government might suddenly decide that it needs a million or so yards of this and that, and then perhaps this would serve as a "shot in the arm." Some news we got the other day, however, indicates that there is very little likelihood of any such "shot."

The old Armed Services Textile and Apparel Procurement Agency (now NYQMPA) was quoted as saying that for the fiscal year ended June 30, 1953, the Army, the Marine Corps, the Navy, and the Air Force purchased approximately 213,000,000 yards of cotton textiles.

How about next year?

Well, the government boys said that business is not going to be very good. Procurement, they said, will be "drastically reduced" over the next fourteen to eighteen months.

Armed Services purchases for fiscal 1953 amounted to something like 2% of total cotton goods production for that time, and if this 2% is going to be "drastically reduced" then you can see for yourself, without the aid of economists or statisticians, that you are not going to be able to depend on Uncle Sam unless you are in a few of the specialty lines which he may need and will buy.

Those who are supposed to know, however, say that the basic underlying factors, whatever that may mean, are good in the textile industry and that we have nothing to fear in the immediate future. The soothsayers keep telling us that things are going to get better.

The Foreign Cotton Situation

We came across a little news item the other day which set us thinking about the future. This item quoted Congressman A. O. Hunter of California concerning some of his experiences and observations on a recent trip to India. As all informed citizens know, summer and fall are those seasons set aside for world tours by congressmen and senators with the taxpayers picking up the check. At any rate, Congressman Hunter came back with a few worthwhile comments on what he had seen and that is more than we can say of some of our representatives.

The Congressman said that the Indians are getting excellent results in replacing native cotton varieties with American strains, and that irrigation, mechanization, and other such modern practices are working wonders. Incidentally, he mentioned that most or all of the irrigation costs are being paid for by the United States, and he speculated that in the years to come there might not be very much of a market in India for American cotton.

We can expand the Congressman's fears to countries other than India and wonder what is going to happen to American exports of raw cotton when "the man with a hoe" in China, India, Pakistan, and other countries climbs on a tractor. Some 65% of the American cotton crop is now being consumed by American mills, and it may come pass in time that this percentage will rise to much nearer 100.

The farmer has always been pretty much of a free trader. Generally he has favored a reduction in tariffs, ECA, the World Bank, and other such far-flung plans to promote international trade. He

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can end two main causes of bearing failure

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Felt-lined steel flingers rotating in the grooves of the inner seals positively prevent dirt from entering the bearing. At the same time, the bottom flanges of these flingers, extending under and beyond the inner seal, create a vortex that breaks the grease flow and retains proper amount of lubricant.

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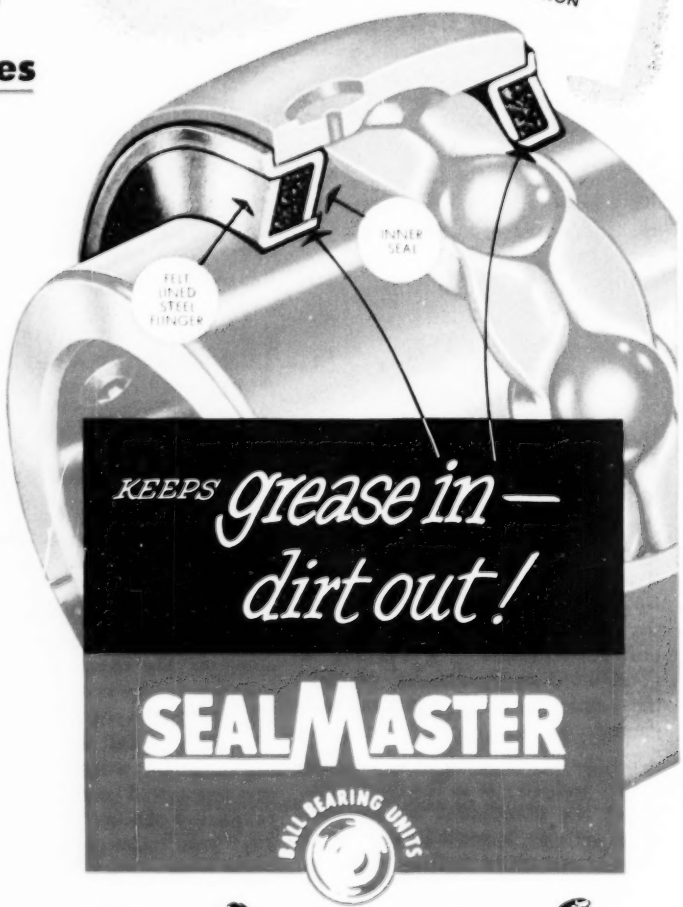
"... if you slip up by skipping lube periods, using the wrong lubricant, letting dirt into the bearing, you'll run into a string of bearing failures. Bearings have no way of yelling for help if they don't get the right attention. They'll just sit tight and take it ... until they fail."

POWERS Handbook on BEARINGS AND LUBRICATION



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FACTORY REPRESENTATIVES AND DEALERS IN ALL PRINCIPAL CITIES

has never been much concerned with the fact that this sort of thing was likely to ruin his best customer, the American mills, through the bringing in of cheap cotton and synthetic goods from other countries. Of course, the American cotton farmer could very well be a free trader because his own markets in this country were about as well protected as it was possible to have them. For example, did you ever try buying a few thousand bales of foreign cotton?

Now, however, Congressman Hunter may have opened the door through which the farmer may be able to obtain a dim view of the future. With American cotton prices "supported" at around 33¢ a pound, what is going to be the picture when plenty of foreign cotton is available at, let's say, 20¢ a pound? Just as the last shall be first and the first shall be last, so also shall the "free trades" become the protectionists. There is perhaps no truer maxim than the one about whose ox is being gored.

Modernization of Plants

In the first few paragraphs of this column we pointed out the textile business was not anything to be jubilant about in most mills these days. Some figures a friend of ours showed us the other day point out that there is a very strong corollary between the prosperity of the textile industry and the amount it spends for modernization of its plant and equipment. This is by no means strange and is about what we would expect but, at least, the figures seem to bear out this supposition.

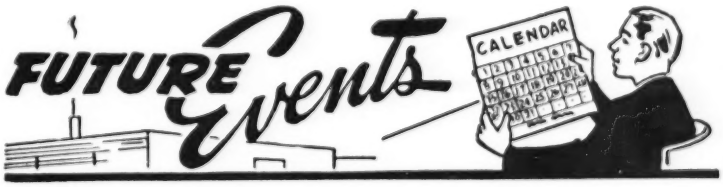
These figures came from the government and showed that in 1951 the textile industry made some $496 million in net profit after taxes, and spent some $694 million for new plant and equipment. In 1952, the industry made $264 million after taxes and spent $399 million for new plant and equipment. In 1953, based on projected estimates, the industry will make about $352 million and will spend for plant and equipment about $296 million.

We do not have the figures, but undoubtedly this same idea could be developed and expanded to include all sorts of things like starch, chemicals, dyes, etc., but the suppliers most likely to feel a profit slump in textiles are those who sell items whose purchase can be delayed. A mill operating full time, but on a very narrow profit margin, would still have to buy the same amount of dye and starch it always bought, but it might not be very much in the mood for some capital investments or paying for the brick and mortar to expand the spinning room.

Happy (?) New Year

The old man of 1953 has folded his sickle and, like the Arabs, silently stolen away. In his place stands the diaper-clad 1954, and he is ours to make of him what we will. We wish we could tell you

(Continued on page 213)



Jan. 25-28—Plant Maintenance & Engineering Show, International Amphitheater, Chicago, Ill.

Feb. 1-2—Annual meeting, National Cotton Council of America, Biltmore Hotel, Atlanta, Ga.

Feb. 4-6—Technical meeting, Textile Div., American Society for Quality Control, School of Textiles, N. C. State College, Raleigh, N. C.

Feb. 17-19—Fifth annual Cotton Research Clinic, sponsored by the National Cotton Council of America, Carolina Hotel, Pinehurst, N. C.

Feb. 25-27—Annual convention, Phi Psi national honorary textile fraternity, Carolina Hotel, Pinehurst, N. C.

Mar. 18-20—Annual meeting, Alabama Cotton Manufacturers Association, Hotel Buena Vista, Biloxi, Miss.

April 2—Spring meeting of Carolinas Section, American Society for Quality Control, Clemson (S. C.) College.

April 2-3—National convention of Delta Kappa Phi Fraternity, N. C. State College School of Textiles, Raleigh, N. C.

April 7-10—Annual convention, Cotton Manufacturers Association of Georgia, Boca Raton (Fla.) Hotel and Club.

April 22-24—Annual convention, American Cotton Manufacturers Institute, Jung Hotel, New Orleans, La.

April 26-30—American Textile Machinery Exhibition (sponsored by American Textile Machinery Association), Atlantic City (N. J.) Auditorium.

April 28—Lowell Technological Institute Alumni Meeting, Haddon Hall, Atlantic City, N. J.

May 3-4—17th Hosiery Industry Conference and 50th annual meeting of National Association of Hosiery Manufacturers, Claridge Hotel, Atlantic City, N. J.

May 5-6—Spring meeting of The Fiber Society, Institute of Textile Technology, Charlottesville, Va.

May 19-20—100th Anniversary Celebration of The National Association of Cotton Manufacturers, Somerset Hotel, Boston, Mass.

May 27-29—Annual convention, South Carolina Textile Manufacturers Association, The Cloister, Sea Island, Ga.

June 10-12—Annual meeting, Southern Textile Association, Ocean Forest Hotel, Myrtle Beach, S. C.

Sept. 9-12—Fourth Canadian Textile Seminar, Queen's University, Kingston, Ontario, Canada.

Sept. 13-14—Fall meeting of The Fiber Society, McGill University, Montreal, Canada, with The Textile Technical Federation of Canada and Canadian Association of Textile Colourists and Chemists cooperating as hosts.

Sept. 15-16—National convention, American Association of Textile Chemists and Colorists, Biltmore Hotel, Atlanta, Ga.

Oct. 4-9—18th Southern Textile Exposition, Textile Hall, Greenville, S. C.

Oct. 14-15—Annual meeting, North Carolina Textile Manufacturers Association, Carolina Motel, Pinehurst, N. C.

Four Aces OF DYEING

Nonionic* Dyeing Assistants

♥ **Telkanol O**—Effective levelling agent and dyeing assistant for wool, unions and furs. Its strong dispersing action for oils and fats makes it an excellent scouring agent in the acid or alkaline scouring of wool and wool wastes. Exhibits high resistance to acids, alkalies, salts and hard waters.

♠ **Dextrol Fast Salt M**—Dyeing assistant for acid metallized dyestuffs on wool. Reduces amount of sulfuric acid normally needed, cuts dyeing time, increases solidity of shade. Color fastness is improved for perspiration, rubbing and decatizing. Helps prevent loss of tensile strength of fiber.

♦ **Rexan O**—Promotes level dyeing and penetration with direct, basic and vat dyestuffs on all fibers except wool. Exhibits good wetting powers in dyebaths. Eliminates use of glue in vat dyeing and retards rate of exhaustion in first few minutes without impairing total color yield on the fiber.

♣ **Telkanite M**—Highly effective stabilizing agent and assistant for all types of napthol dyeing and printing. Has high stability and dispersing properties in acid medium which makes it particularly suitable for the pasting up and dispersing of bases.

*Polyoxyethylated fatty alcohol

dexter

Textile Chemicals

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NEW Equipment AND MATERIALS

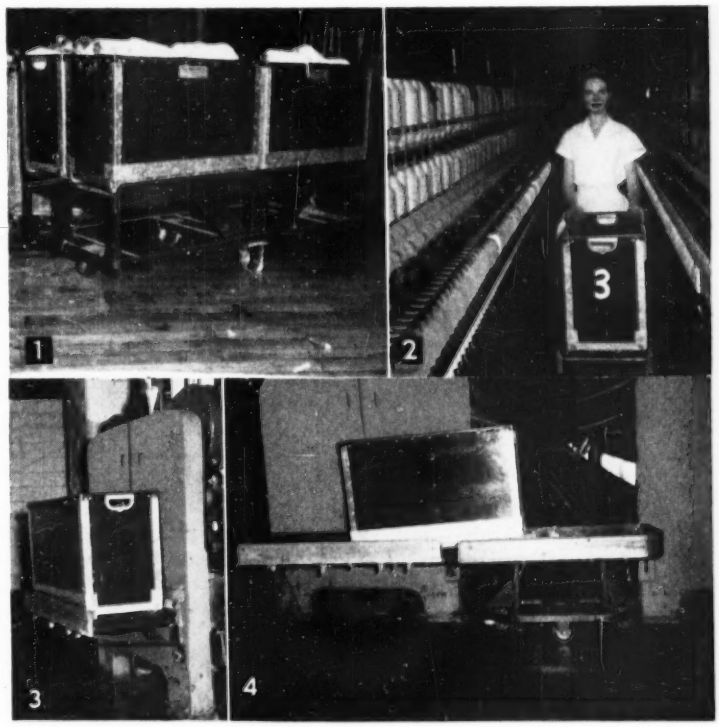
Roving Handling System Eliminates Storage on Frame Creel Tops

A new idea in materials handling is a method utilizing a specially designed truck with four fiber containers for transfer of roving from fly frames to spinning room where spinners creel roving directly from the individual fiber containers, eliminating the necessity for laying-up and storing roving on the tops of spinning frame creels.

Refer to the accompanying photos to see how this is done.

The truck with four full boxes of roving (photo 1) — they hold one complete doff of roving from a fly frame — is rolled to the spinning room for storage or immediate use. Spinners, using another type of special truck known as a battery buggy, roll individual boxes of roving off the four-unit truck onto their single-unit truck and creel their frames directly from these boxes (photo 2). Little effort is required for the operative to place the full box of roving on her truck because the bottoms of both trucks are made of roller type conveyors.

Some mills have installed special storage racks on each spinning frame (photo 3) to provide additional storage space. Here again, little effort is required for the spinner to transfer the full box of roving from the storage rack to her buggy since the rack is the same height as the truck bed and its bottom is also a roller type conveyor (see photo 4). This storage rack is designed so that it can be quickly removed from the head end of the frame (no bolts, etc., to delay the frame tender).



Floating bottom containers are also available for 12" x 6" roving to keep the packages at the operative's finger tips and thus reduce fatigue.

Fisher Mfg. Co., Hartwell, Ga.

For additional data, request item A-101, using Handy Return Card on page 184.

Big Savings with Continuous Roll Feed for Printing Machines, etc.

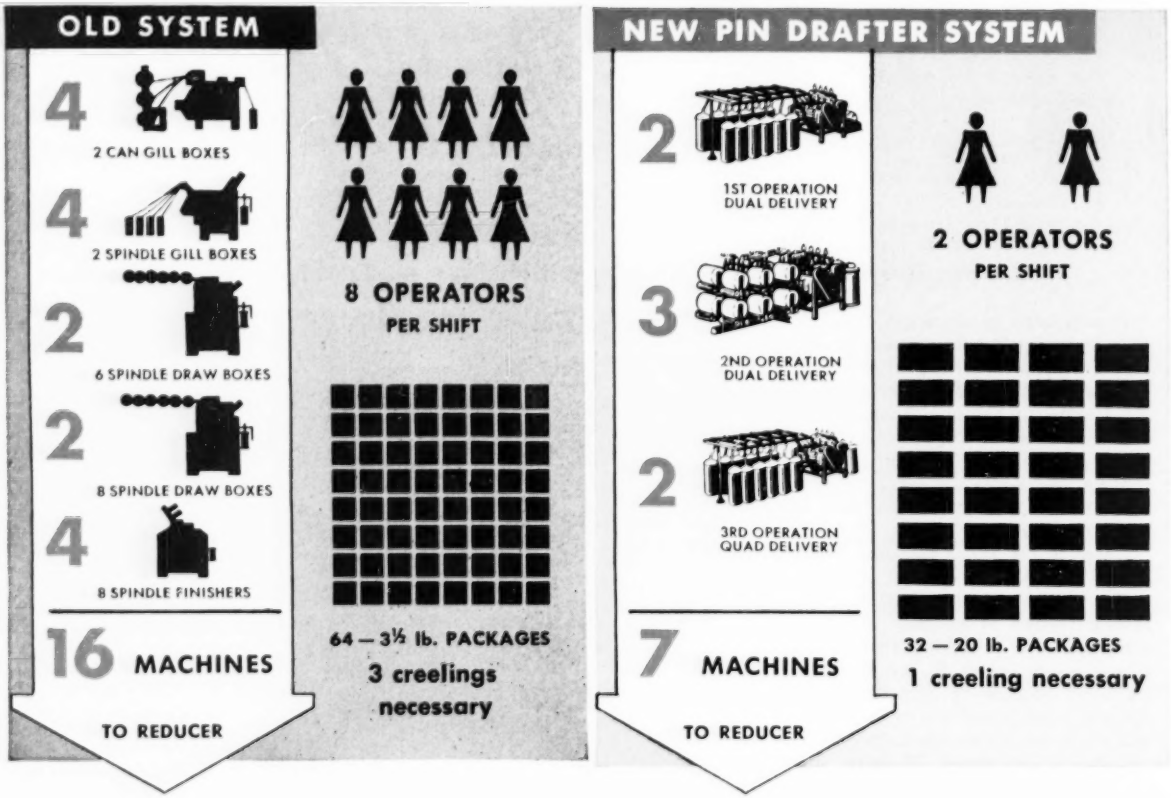
The new Model G Continuous Roll Feed makes it possible for the operator to sew on new rolls of cloth during continuous top speed operation of printing machines, tenter frames, etc. being fed. In time, labor, and cloth, it is estimated that this device will save well over one hundred dollars per machine per shift, in many installations.

The feed is an automatic scray, equipped with controls so that it never has too little goods or too much goods. Very large yardage is stored in a compact space, and hand feeding, uneven tension, dirt, bad seams, and other sources of waste are eliminated.

In operation, the Model G allows the operators ample time to sew goods. Very large yardage is stored meeting evenly. Goods are never dragged on the floor, nor exposed to the hazards of streaking, etc., caused by a slow-down or complete stop-and-start required for sewing on new rolls in the old-style type of operation. An additional obvious advantage is that dead time, when the machine is shut down to allow for sewing on new rolls, is completely eliminated.

The unit is built of steel, and has

Which system would you choose?



PATON MANUFACTURING COMPANY, LTD. of Sherbrooke, Quebec, chose the Pin Drafter system. They knew the importance of cutting costs in the highly competitive market for their worsted suiting fabrics. And they saw the tremendous cost savings they could realize with the adoption of the Pin Drafter method for the early stages of yarn preparation. Besides maintaining their high quality standards, here is the record of the Pin Drafter system at the Paton mill:

- **7 machines replaced 16 machines.**
- **2 operators replaced 8 operators on each of two shifts. Operators prefer the Warner & Swaseys — there's a waiting list to get on these machines.**
- **Over-all waste reduced 50%. Waste practically eliminated at drawing — drastically cut at reducer.**
- **Creeling at reducer cut 6 to 1. Instead of creeling sixty-four 3½ pound packages three times, operators now creel only thirty-two 20 pound packages.**
- **Cost of repair parts for the Warner & Swaseys is extremely low.**

Direct savings from the Pin Drafters has enabled Paton to cut their manufacturing costs substantially. The Warner & Swaseys' outstanding record was summed up by Mr. R. Neil, Plant Manager: *"The installation could have paid for itself in 1½ to 2 years if the savings were retained instead of passing them along to the customers!"*

Two quad delivery Warner & Swasey Pin Drafters in operation at Paton Mfg. Company, Sherbrooke, Quebec.

SALES OFFICES

Main Office and Factory: 5701 Carnegie Ave., Cleveland 3, Ohio
61 Rivulet St., North Uxbridge, Mass. — 6910 Market St., Philadelphia, Pa.
Candler Building, Atlanta, Ga. — 1820 Browning Ave., Charlotte, N. C.

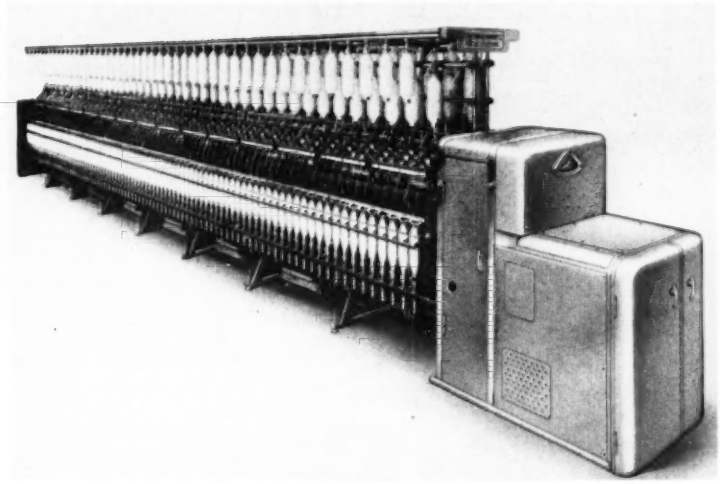
YOU CAN PRODUCE IT BETTER, FASTER, FOR LESS WITH WARNER & SWASEY MACHINE TOOLS, TEXTILE MACHINERY, CONSTRUCTION MACHINERY

a stainless steel scray which is rust-proof and easily kept clean. The nip rolls are non-lapping.

Recommended for use with the automatic scray are the Mount Hope adjustable tension device, which maintains a constant tension that can be duplicated at any time to get the same results, and Mount Hope automatic guiders, which hold the goods out to constant width and feed them centrally at all times.

Mount Hope Machinery Co., 15 Fifth Street, Taunton, Mass.

For additional data, request item A-110, using Handy Return Card on page 184.



Tweedales & Smalley P.1 spinner (Atkinson, Haserick).

Spinning Frame Features Controlled Balloon for Uniform Tension

Large packages can be spun economically at high speeds with uniform tension on the yarn throughout the building of the bobbin on the new Tweedales & Smalley (1920) Ltd. P.1 ring spinning frame.

A 10" lift, 2¼" ring machine, it spins at 9500 rpm with low end breakage. Counts from 10s to 50s have been spun economically and satisfactorily on it.

The large package results in big savings during the subsequent rewinding processes, amounting to as much as 50%. Labor costs involved in both spinning and doffing are less.

Frame of the machine is only 28½" wide, yet it is at least equal to conventional machines in stability. Thus less floor space is required, with the result that more spindles can be placed in the same area occupied by conventional spinning frames.

Other features: umbrella type creel requiring no skewers; spindles of aluminum plug type with spring buttons for paper tubes have knee brakes to aid in piecing up; spindles are driven in multiple units of 24 spindles from driving pulleys (no cylinder) on a centrally placed shaft; nylon tapes, nylon bonded are used; balloon control rings are made of nylon and can be lifted individually for piecing or collectively for doffing; headstock gearing is simple, and by avoiding use of cams a perfectly shaped bobbin is built; roving or combined build can be made; suction underclearers are integral part of machine; driving motor and controls are in gearing end.

The majority of the high drafting systems now available can be supplied with the machine.

Atkinson, Haserick & Co., 211 Congress St., Boston 6, Mass.

For additional data, request item A-105, using Handy Return Card on page 184.

"Package" Control Units for Size Cooking

Development of a "packaged" control system for textile size cooking applications has been announced.

The system comprises a single-pen, integral cam thermometer program controller with control valve and air

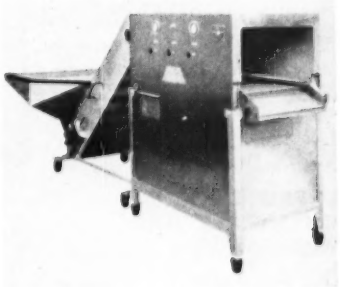
NEW Equipment AND MATERIALS

accessories. Control lights are built into the door of the instrument case housing the controller. They are actuated by an adjustable sequence switch to indicate completion of a program. The switch simultaneously opens the cam motor circuit to stop its rotation.

With this control system it is only necessary to combine the ingredients, set the program cam, and open the steam valve. The temperature of the size will be automatically controlled according to the desired program. When it has reached the end of the cooking period, the green signal light will go out, the red light will come on, and the temperature will be maintained at the "hold" value as long as desired.

Minneapolis-Honeywell Regulator Co., Industrial Div., 4509 Wayne Ave., Philadelphia 44, Pa.

For additional data, request item A-114, using Handy Return Card on page 184.



Mona Industries' new cold water conditioner.

Versatile Yarn Conditioner Has 50% Greater Capacity

The Monalit-Duplex cold water yarn conditioning and twist setting machine for bobbins, cones, skeins, and high-twist crepe yarns has been redesigned so that production capacity has been increased by 50% without increase of floor space required.

An automatic hopper and feeder-conveyor arrangement are utilized when yarn on bobbins, quills, etc., is to be conditioned. Yarn in skein form, on cones, or other large packages is fed by hand.

When the latter is necessary, the

"After 20 Years SI Has Found The Answer . . . Now He's Forgotten The Question"

SEYCO Products

WARP SIZING

- Softeners
- Binders
- Penetrants
- Ty-In Penetrants
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WET PROCESSING CHEMICALS AND AUXILIARIES

- Dye Assistants
- Penetrants
- Rewetting Agents
- Sanforized Fabric Oils
- Detergents
- Scouring Agents
- Softeners

NIAGARA TWIST-SETTER

Yarn Conditioning Penetrants

Keep your eye on the ball, boy!

The SEYCO lab is no ivory-tower research organization. We keep our minds on the customer's problem . . . to find a practical, down-to-earth answer.

SEYCO'S experience and ingenuity will find the answer to *your* problem.

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SEYCO

PENETRANTS • SIZING • SHUTTLE DRESSING • SOFTENERS • ALKALIS • TWIST SETTER MACHINES •

feeding unit is equipped with casters, and conditioner and feeder have separate drives, so that uncoupling of the units can be accomplished in less than a minute.

Sprays from top, bottom, and upon request from sides, allow more thorough and effective conditioning in the stainless steel chamber.

Tinting of yarn for identification can also be done with this new machine.

Mona Industries, Inc., Textile Chemical Div., 65-75 E. 23rd St., Paterson 4, N. J.

For additional data, request item A-112, using Handy Return Card on page 184.

Aerosol Spray Stops "Boil-Over" in Foaming Chemical Reactions

Foaming resins, boil-ups of organic mixtures, frothing steam distillations, and many other manufacturing problems involving foaming materials can be quickly controlled with a dash of "Antifoam A," a silicone base defoaming agent packaged in easy-to-hold, self-spraying aerosol containers.

Spray type application not only speeds up chemical reactions but saves a lot of time and trouble by eliminating messy clean-up of equipment. Principal advantages, however, are adaptability to spot treatment in confined areas and the fact that no mixing is required.

Dow Corning Corp., Midland, Mich.

For additional data, request item A-201, using Handy Return Card on page 184.

Stainless Steel Cloth Truck for Dyehouse Use

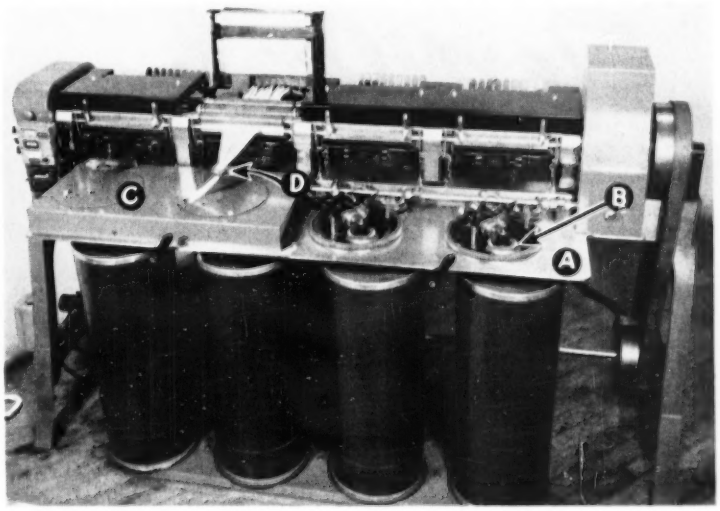
Developed especially for dyehouse use is a line of stainless steel cloth trucks which can be had in any size to meet specific mill requirements.

Fabricated from 18 gauge stainless steel, the truck features sides and ends formed with longitudinal grooves to insure a strong, rigid unit. Top edges are fitted with stainless steel rod for reinforcing and to provide handles at each end. Solid bottom is pitched from center to openings at each side, providing drainage for full load.

Rubber bumpers on each end protect trucks and other objects from "hard knocks."

Riggs & Lombard, Inc., Foot of Suffolk St., Lowell, Mass.

For additional data, request item L-117, using Handy Return Card on page 184.



Saco-Lowell's new Positube assembly completely replaces the conventional calender roll and tube gear on drawing frames. It is supported by a steel plate (A in photo) which is fastened to the roller beam. This plate is cut out to receive Positube assembly (B) A stationary guide (D) is mounted on a removable cover (C). Sliver passes from nip of front roll, through guide, and into nip of Positube coiler.

Drawing Frame Coiler Unit Facilitates Processing of Long Staple Fibers

To facilitate processing of synthetic fibers, wool, or blends of these on drawing frames assembled on a five-roll chasis, the Positube Coiler was developed. Difficulty experienced in getting sliver made of these fibers from the nip of the calender roll through the tube gear into the can on conventional drawing frames is eliminated when this new coiler is utilized.

The sliver is always under positive control with enough tension to assure a uniform and unbroken rate of delivery of the sliver into the can. This tension can be regulated very accurately by means of change gears. Surface of the calender rolls is cleaned by a clearer. The dual-acting stop motion stops the frame either when the sliver breaks between the small calender rolls and the front roll, or in the event of a choke on the calender.

The assembly will be standard on all new frames built to process wool, synthetics, and blends, and can also be furnished as a changeover on frames assembled on 5-roll chassis.

Saco-Lowell Shops, 60 Batterymarch St., Boston, Mass.

For additional data, request item A-401, using Handy Return Card on page 184.

Device Improves Processing on Fly Frames

The Rotafil device—described by its manufacturer, Thoma Co. of Zurich, Switzerland, as "the new

(Continued on page 171)

STRENGTH AND FLEXIBILITY . . . In every Textile Spring-Beard Needle, you get the ideal combination of strength and flexibility. These properties are built in with a special steel formula, proper tempering, and the careful balancing of every needle dimension — length, width, thickness and taper.

When you buy needles, either spring-beard or latch, remember Textile's quality controls — automatic and electronic — which constantly check each stage of production. You can see the results in longer-lasting needles, better fabrics, bigger profits.

TEXTILE MACHINE WORKS, READING, PENNA.

Textile

SPRING-BEARD NEEDLES

Arrow LATCH NEEDLES

Some mistakes you can avoid when

processing saran monofilament

By a Mill Superintendent
as told to a member of the staff

EXCLUSIVE

OUR PLANT is a cotton mill, a pretty successful one, we think. We also make a number of specialty items. Some of them are so tough to run that other plants won't tackle them. But when we got into plastics we found that we were just babes in the woods.

The mistakes we made should be helpful to other mill men who are planning to switch from natural fiber to plastic, or who are planning to run plastics on standard cotton type equipment and under the same processing conditions.

Our experience concerns the the manufacture of .010 and .012 inch (10 and 12 mil) saran filament into upholstery and automobile seat cover material. We finally succeeded in running the plastic because our seconds, which were from 50-75% the first few months, dropped to one or two per cent, and our customers gave us repeat orders.

But the man in charge of plastic processing lost weight from 190 to 150 pounds. So if you have a stout fellow around the plant who has never run plastics and has had experience only on natural fibers, put him on the plastic job and watch him become a bag of bones.

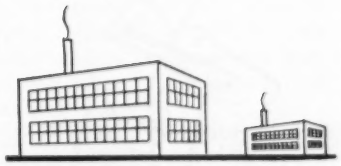
Need Separate Facilities. In the first place, plastics should not be run in the same mill with cotton. Get yourself a separate plant so that conditions can be controlled according to the needs of the plastic — or that was our experience with saran. And don't try to use the same equipment on which cotton is being processed.

For instance, we tried to weave saran on a light cotton loom. So much tension was required on the warp that the reed pulled out, parts wore or broke excessively, and we could not get the required number of picks per inch. In round figures we were trying to run an 80x40 (finished) construction.

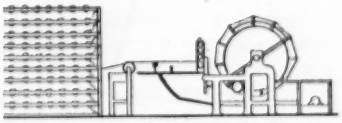
Our efforts to use the same loom, beam, reed, and shuttle as used on cotton failed completely. So we went to the heavier W-3 loom with more success.

The Warp Mill. Not having a silk system warp mill (horizontal warper), we attempted to warp our loom beams from section beams by running the saran through the slasher, both around the cylinders and bypassing them. Ends from the various section beams stretched differently so that we had some tight ends, some slack ends, and some in between.

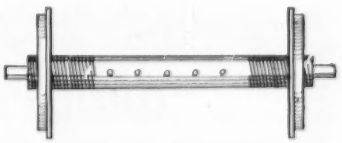
Drawing-in the patterns was



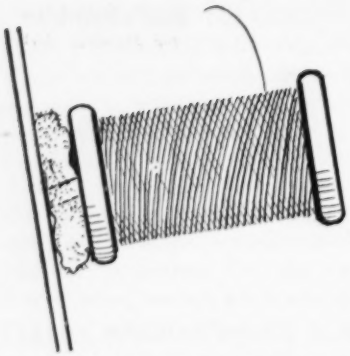
SEPARATE FACILITIES are needed when running saran, so that conditions can be controlled. Don't try to run it in the cotton mill.



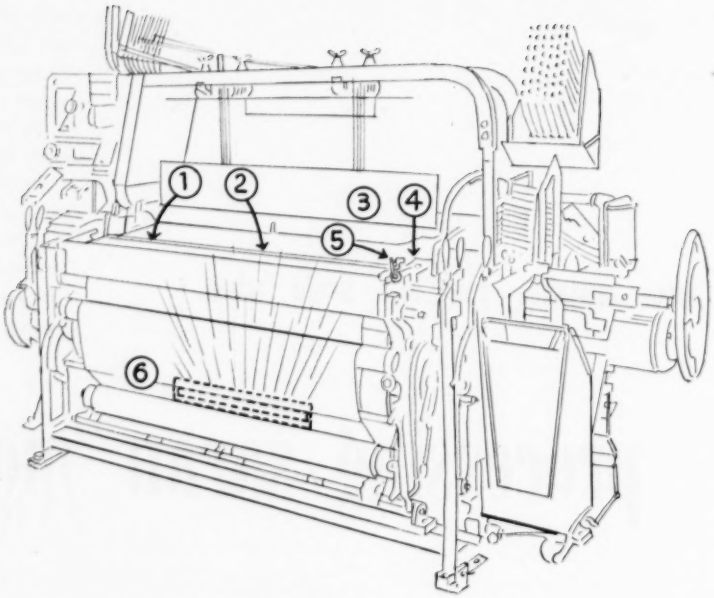
GET A WARP MILL. Though some mills have used slashers to make loom beams, much difficulty will be eliminated if a well-built and strong horizontal warper is employed.



STEEL LOOM BEAMS are more satisfactory for saran than wooden beams; the latter may be crushed by pressure of the plastic. Beam heads which thread on the barrel permit adjustment of beam for different size warps.



CONTROL AND BRAKES for spool on warper creel. Use wool cloth to permit spool to turn, yet stop rotation of spool if end breaks.



1. RACE PLATE CUTS ENDS when made of metal or wood. A corduroy covering reduces warp breaks but requires more power on the pick. Binder leather makes the best race plate; must be changed every six months.

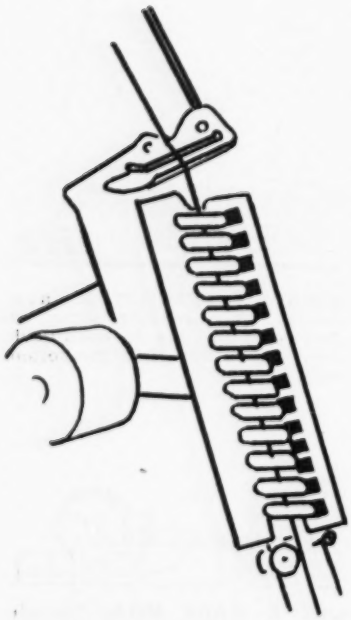
2. INSTALL GLASS ROD behind the reed; it is easier on the warp than a wooden lay.

3. TIMING OF SHED is important so that pick will be held in place.

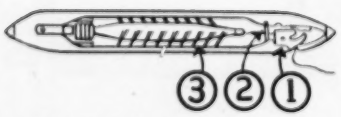
4. TO REDUCE STRAIN ON SELVAGES, have as nearly a straight line as possible from beam to reed to fabric.

5. RUBBER TEMPLE ROLL is best. A burr will damage fabric.

6. FLUORESCENT LAMP under loom permits weaver to see imperfections easily.



IN QUILLING, the washboard or gate tension is suitable. Heavier tension weights are desirable.



THE SHUTTLE equipped for saran should have:
(1) The tension eye;
(2) An anti-balloon device;
(3) Bristles top and bottom.
This mill uses 18 bristles in a shuttle, 9 above and 9 below the quill.

practically impossible under these conditions, and when they finally were drawn-in and warped into the loom, we had mat-ups, crossed ends, slack ends, sagging drop wires, kinky warp, and broken ends.

When we tried to put more tension on the ends in warping at the slasher, the warp had so much pressure on it that the wooden beam barrel was crushed, and the beam head was pushed off.

Going to a beam with steel barrel and heads solved this particular problem. The heads screwed onto the barrel so that they could be adjusted to the width of the warp.

After our fruitless experiment with beaming on the slasher, we attempted beaming direct from a full creel. However, our patterns contained from five to six thousand ends, which meant that we had too much investment in yarn; each end required a 3-lb package for supply. Also, the method was too slow, and the yarn from the back and front packages in the creel had different amounts of elongation, even when we used a compensator roll between the creel and the beaming head.

So we bought a silk system warper which permitted fewer supply packages and less distance between front and back supply packages, which reduced the difference in elongation of the yarn.

We then found what pressure can do to a wooden horizontal warper. The reel collapsed. The warp was on in repeats and could not be removed. A thousand dollars worth of saran was cut off as waste.

Even when the reel was reinforced, we found that this warper was not made for heavy stuff. The beam stands were too light, the brakes would not hold, and the beaming head tore up.

Our master mechanic finally built a strong warp mill of steel,

creel and all, with an adjustable friction brake and a stop motion built especially for us by Steel Heddle. Angle iron was used for bracing. It would have warped a string of box cars. The creel was lined with slasher cloth so that the spools could turn against it to equalize the tension and to stop their rotation, if an end broke. With the new mill and steel beams our warping problem was solved.

Quilling. We had some cotton quillers which make a straight build, but the build permitted the saran to shell off in the shuttle. Therefore, we used the Whitin-Schweiter quiller which uses a lock stroke. The disc tension did not hold the plastic tight enough so we went to the gate or washboard tension device and used a heavier weight. This proved more satisfactory.

Anti-Balloon Device in Shuttle. But we still had trouble with sloughed-off or kinky filling because of the springiness of the saran. Watson-Williams developed an anti-balloon device to go in front of the shuttle tension eye; this controlled the filling and let it twirl off the quill. The tension eye and anti-balloon device eliminated much of our trouble.

Static Control. Static, and how to reduce it, was a problem with saran. When a pick was placed in the shed and before the reed could beat it up, the pick had dropped back, causing a crack or barre' mark in the fabric.

Oils and other anti-static agents were tried on the filling. They got on the shuttle and caused it to swell and stick in the boxes. They also ruined the race plate. So we changed to applying anti-static solutions on the warp at the warp mill.

The solution was used on a roll which was covered with slasher cloth, touching the plastic warp while it was being wound on the beam. Although the anti-static oil kept the loom parts from rusting, it was good for only a cut or two on the warp because it dried. To overcome this we applied it to the warp on the loom, between the drop wires and harness, by placing slasher cloth over the warp and feeding it from a tank on the loom. This experiment caused oil and water to be thrown all over the loom and floor, making such a mess that we had to clean the floors at frequent intervals and use an absorbent compound under the looms.

Wax was applied from a board on the loom, and infra-red lamps were tried. None was successful. Starch was also sprinkled on the warp to reduce static, but when it got in the bearings of the loom it absorbed the oil, and they burned out. Starch was discontinued.

After Moreland Chemical supplied us with a satisfactory anti-static agent that would stay on the warp longer, we went back to applying it at the warp mill. This proved better because the application of anti-static agent could be more closely controlled, and the excess agent would drain.

Loom Race Plate. The type of race plate on the loom is highly important. It took us three months to discover that the metal or wood race plates were cutting out ends. A corduroy covering reduced the warp breaks but required more power on the pick. A calf skin covering was better — until the anti-static agent caused it to stretch.

Our solution to the race plate problem was to remove them entirely and use thick leather, either binder type or heavy belting. Even then the race plates had to be changed every six months because of grooves cut in them by the saran.

Our experience was that anything soft will serve better as a race plate than either metal or wood, but the softer the material the more power is required. Leather evidently was the happy medium.

We also discovered that better loom fixing is required when weaving plastic than when weaving cotton. Plastic does not provide a "cover" on the fabric, as does cotton, and the plastic will be woven just as the loom is set. The shed must be timed late to close on the pick and prevent cracks.

Filling Problems. The filling magazine must be accurately set, and the filling ends must be kept tight. Heavy tension must be used in the shuttle; we put nine bristles on top of the quill and nine on the bottom.

In connection with the filling difficulty (cracks or barre'), we also tried infra-red lights over the filling magazine to heat the yarn, but without success. Then we used electrodes between the cells of the magazine. This also was a failure because the filling was cold on one side and melted on the other. Hot air from a hair dryer was no help.

The weave room was kept at 80-90 degrees F with only 40-50% relative humidity. We even tried saran on Jacquards. It ran all right when we used heavier lingoes and heavier strings, but about three weeks were required to get a loom ready.

Stainless Steel Parts. After much experimentation, we went to stainless steel reeds and drop wires to prevent corrosion. Every six months we had to change the heddles and drop wires because of grooves.

Our opinion is that saran should be run three shifts a day for seven days a week. When the loom is stopped for any length of time the parts corrode, and the loom is difficult to start up. Keep that loom moving; let the sales department keep up with the loom.

Tying-In. When we started running saran, all warps were drawn by hand. However, we found that the Uster tying-in machine, if we got an end-and-end lease at the warp mill and at the loom, would let us tie back any pattern that had the same number of ends.

Selvage. Trouble may be encountered with selvages when running saran. We found that the best method is to have the loom beam width as near the width of the warp in the reed as possible, controlling this at the warp mill. Thereby a straighter line in weaving is maintained. Both the warp and filling must be run with so much tension that the heavy pull of both is too much for the selvage if the contraction is great; the straighter the line from warp to reed to cloth, the less strain on the selvage. This then leaves only

DURHAM S.T.A. OFFICERS left to right: **T. C. Pegram,** Erwin Mills, Durham, past president; **J. L. James,** Erwin Mills, Cooleemee, first vice-president; **J. P. Hughes,** Cone Mills Corp., Hillsboro, chairman, Eastern Carolina Div.; **A. M. Moore,** Erwin Mills, Durham, member board of governors; **T. I. Stafford,** Clifton (S.C.) Mfg. Co., president; **J. P. Hutchinson,** Rosemary Mfg. Co., Roanoke Rapids, member executive committee, Eastern Carolina Division.

Metallic Clothing and Neps Discussed by S.T.A. at Durham

Staff Report

Questions on carding and spinning were the chief topics on the agenda as the Eastern Carolina Division, Southern Textile Association, met at the Erwin Auditorium, Durham, N. C., on October 17.

Metallic Clothing. Several mill representatives gave their experience with metallic clothing. One mill strips every 120 hours, and does no grinding except for the flats.

Another plant reported an average nep count of 12 per hundred square inches of card web with fillet clothing, compared to a count of 9-10 on metallic - clothing - equipped cards running on the same stock.

Factors to be considered in changing over to metallic clothing are the higher initial cost and the added weight (about 500 pounds per card). In some cases the extra weight may prohibit the use of metallic clothing on cards above the ground floor, unless the upper floors are well braced.

Neps. Most of the mills represented count neps at least once a week on each card, at the same point in the stripping cycle, and most use neps per hundred square inches of card web as their measure.

One mill has some cards clothed with 100 and 110 wire, and others clothed with 90 and 100 wire, both carding at 11 pounds per hour. The cards with 100 and 110 wire make the more neps. Along these lines, another mill's experience has been that a lower nep count is made with finer wire when carding at 11 pounds per hour or less, but that coarse wire is more satisfactory from a nep standpoint at higher rates of production.

The effect of fiber fineness was brought out by the experience of another mill. This mill normally uses cotton whose fineness is 4.25 micrograms per inch. When a change was made to cotton of a fiber fineness of 3.7 micrograms per inch, other factors remaining the same, the nep count went up about 5 times.

Controlling Yarn Number. Five mills replied to a question asking where they control their yarn numbers. Of these, four usually control them at the slubber, since the largest draft gear is available there.

Two of the mills sometimes control the count of filling yarn at the spinning frame, and another changes the weight of the drawing sliver if it is out of line.

The fifth mill, which has controlled humidity in opening and picking, controls yarn count at the pickers. Humidity is kept at 45-50%. Tests are made every 2 hours, and lap weights corrected if necessary.

the tension of the filling on the selvage.

We tried a cotton selvage, but it was not satisfactory. For some patterns the selvage can be the same weave as the body of the cloth, but for a 3/1 twill in the body, a plain selvage from the tape motion is better.

Other Pointers. To further reduce warp breaks, a glass rod on the lay and back of the reed for the warp to ride on is helpful. The smooth surface of the glass is easier on the warp than the rough wood of the lay.

We suggest not quilling the filling too far ahead of actual use or the plastic will set and give difficulty in weaving. About 36 hours ahead is as far as is advisable for quilling.

A rubber temple roll is necessary in the temple, but do not use a burr. The burr makes holes, which are objectionable. Although the rubber wears out quickly, it must be used to hold the fabric out to full reed width because of so much tension on the filling.

One idea that will aid in reduction of imperfect cloth is to install a fluorescent lamp under each loom so that the weaver can see through the fabric and detect imperfections quickly.

To sum up our experience on saran monofilament: Don't try to process it as you now run natural fibers; do your research and experimentation on a small scale before going into full scale production; and make certain that you get close supervision. Plastic yarn is expensive, and without close supervision you can toss away a pile of money in a hurry.

Making loopless toe hosiery, Mr. Full-Fashioned Manufacturer?

Convert Your Loopers to Seamless

By Sam Boyer
Wisteria Hosiery Mills, Inc.

EXCLUSIVE

THE INTRODUCTION of loopless-toe hosiery to the full-fashioned industry has caused thousands of full-fashioned loopers to become obsolete. In the majority of hosiery mills one will find long rows of looping machines, in good mechanical condition, standing idle because the looping operation is no longer considered necessary or financially profitable.

The problem created for most hosiery manufacturers is that of disposing of the looping machines and tables, or the best method of reclaiming the salvage value of the equipment. Otherwise this equipment must be written off as obsolete and a complete loss. In many instances the obsolete machines can be converted to seamless and sock loopers and be utilized by the owners in the seamless or sock division of the same company. In other instances equipment may be sold to sock and seamless manufacturers, who may convert it to their own needs.

Elimination of the looping process apparently has not worked a great hardship on the looper operators. The skill of the looper operators in handling fine denier nylon hosiery has proved to be an asset, and looper operators have been shifted to other departments where they have readily adjusted themselves to other operations more quickly than new employees could become adjusted.

The advantages of retraining looper operators and converting full-fashioned loopers may be indicated by the accompanying photo. The looping machine was a 32-point full-fashioned looper used on 15 denier nylon hosiery, and was converted to a 16-point sock looper in approximately three hours. The operator shown in the photo had a high production record as a full-fashioned looper operator. When transferred to sock looping, she made a good production record by the third week, so retraining cost practically nothing. The socks shown in the photo are navy blue, and are somewhat difficult to see in the looping process, but the quality of looping produced is superior.

In converting SOTCO full-fashioned loopers to socks or seamless work, the change-over sets should first be ordered from the factory. The factory should be advised of the present gauge of the machine and the gauge of the change-over set desired. The factory supplies information regarding the parts and gears necessary and the delivery date. It is more economical to order complete change-over sets than to order individual parts for the machine.

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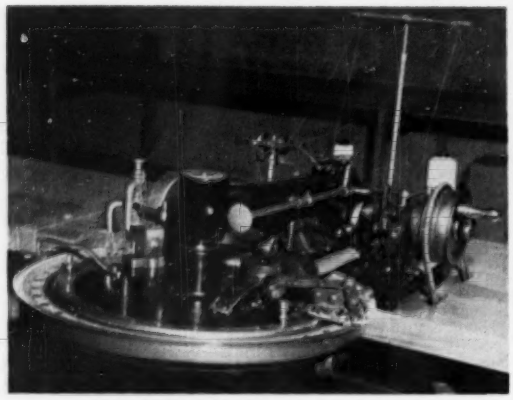
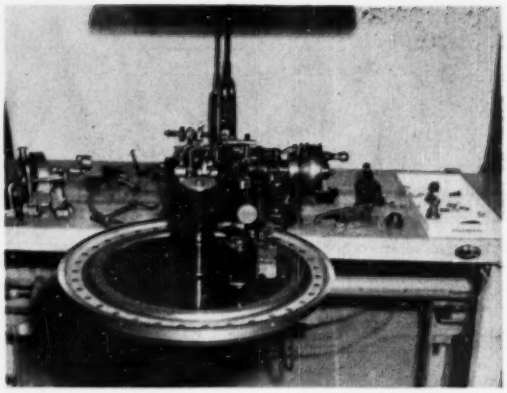


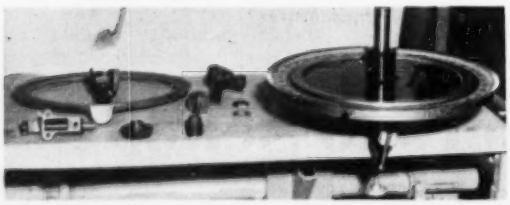
1. A 32-POINT LOOPER which has remained in good condition, although it has been used in looping 15 denier full-fashioned nylon hosiery. This Sotco Steady Dial looper is one of many that have been converted to 12 or 18-point sock loopers, or to 38 and 40-point seamless loopers.



2. IN DISMANTLING the machine for the conversion, first remove the trimmer and brush assembly by loosening and removing the trimmer connecting driving disk from the end of the main shaft. Loosen the trimmer gear setscrew, and remove the two trimmer base clamp screws from underneath the dial race. Pull the trimmer gear shaft out of the bearing on the left end of the looper, and remove the trimmer assembly as a complete unit.

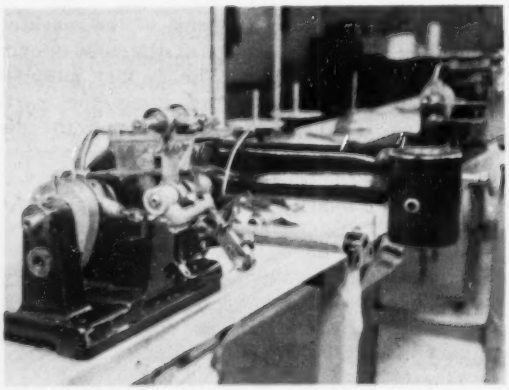
The fabric guard assembly may be removed as a unit by taking loose the two arms that are fastened to the dial race, and then removing the two fabric guard support screws in the machine base. The looper hook attachment is removed next by unscrewing the shoulder screw from the looper hook actuating cam connection; remove the looper hook actuating cam bracket screws from underneath the dial race by using a 7/16-inch box end wrench, and the entire attachment can be taken through the left side of the frame and placed on the work table.

Remove the main drive gear locating screw which is spotted deep in the shaft. Loosen the dial driving gear setscrew, then drive the shaft to the back of the machine until it clears the shaft guard, then remove the dial driving gear from the dial gear bearing casing. Remove the two taper pins from the dial gear bearing by driving upward from underneath the dial race. Relocate the bearing, or replace it with a new one from the changeover set to adjust the dial worm to fit the new worm gear. The rack guard and worm gear should be removed from underneath the dial race.



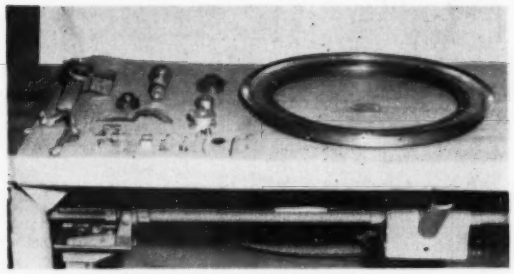
3. DIAL RING ASSEMBLY and dial race assembly should be removed from looper frame. Remove name plate, drive out the taper pin that holds the dial race stud in the frame collar. Support the dial ring and race assembly before loosening dial race setscrews; otherwise the stud may slip from the bearing and allow the entire assembly to fall. Place dial ring and race assembly in vise located nearby, and secure dial adjusting nut in the vise, having the dial ring in an upright position where it can be easily converted to a different gauge.

Remove three clamp ring screws and lay clamp ring aside. Gently slide dial ring assembly from dial race and place it aside. Remove worm and worm gear after loosening the two setscrews in each part. Lift the dial driving pinion and shaft from the bracket. Give all parts, including the frame, a very thorough cleaning by removing grease and sludge, and inspect the machine for defective or worn parts.

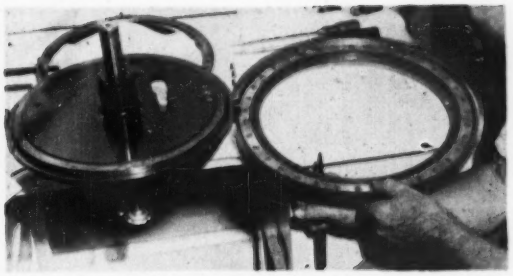


4. SOTCO LOOPER FRAME remains bolted in position on table. It is not necessary to remove any part of the main shaft assembly in changing a 32-point looper to as low as 12 points or as high as 40 points. There is an advantage in using the barrel type roller and straight wall needle arm cam, instead of the tapered roller and tapered wall needle arm cam that is recommended for use below 18 points. However, if it is preferred to change the needle arm cam and roller assembly, first remove the hook eccentric strap, friction clutch cam shoulder screw, then the other setscrews in the main shaft assembly, and pull the main shaft with assembled clutch from right side of the machine.

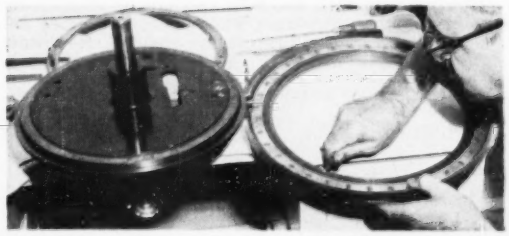
When assembling the changeover needle arm cam, simply reverse the dismantling procedure. For safety, the needle should be removed from the holder before any attempt is made at cleaning the frame.



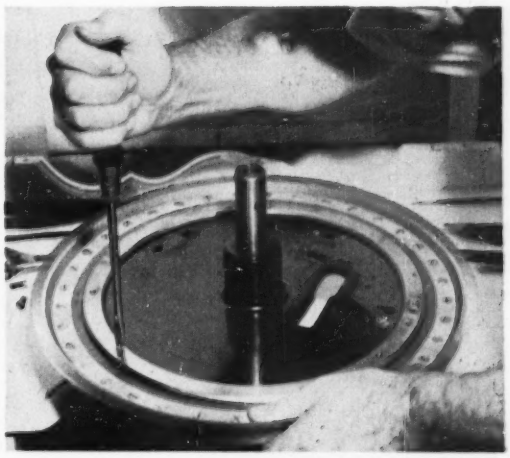
5. CHANGE-OVER PARTS included in a set when converting a 32-point Sotco looper to 12 points for looping half-hose. When preparing to change the gauge of a looping machine, it is best to consult the factory by giving all pertinent information about present gauge and the gauge of the change-over parts desired. There are four different combinations of sets, each set being needed for a specific condition in changing gauges, but converting a looper to another gauge is a fairly simple process to a mechanic having a reasonable amount of skill.



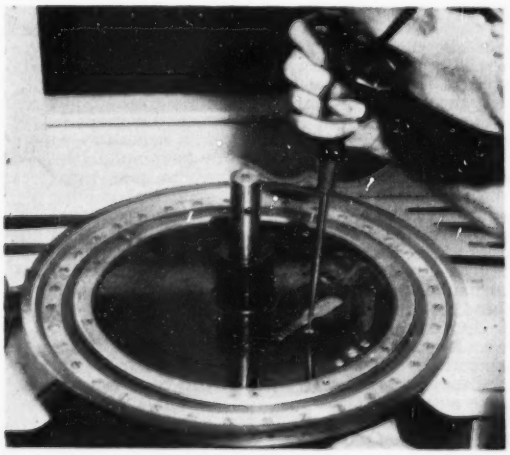
6. NEW DIAL RING should be carefully cleaned and tried on the dial race, but usually it will need scraping before it will fit. There is no short cut to the scraping job, so obtain a three-edged bearing scraper and hold it square with the inside edge of the dial ring and scrape gently and evenly around the entire inside surface. *Do not use emery cloth or attempt any grinding for the dial bearing surface will be ruined.* A good position for scraping the dial is to place it on a flat table or work bench, with a small segment of the dial ring projecting over the edge. Do not attempt to remove too much metal, but try the ring frequently for a fit to the race: it should turn freely without binding but should not have any excessive clearance.



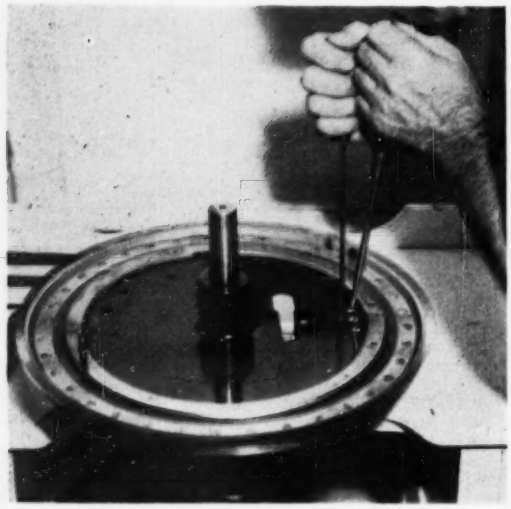
7. REPLACE THE CLAMP RING after the dial ring is fitted, tighten the three screws lightly, then try to turn the dial ring by hand. Usually the ring will bind, and scraping the bearing surface beneath the clamp ring is required. When scraping the bearing underneath the clamp ring, again try frequently for a fit. While scraping the bearing hold the scraper in one hand and even with the bearing surface. Remove a few thousandths of an inch of metal at a time. The other hand may be employed to hold the dial ring flat on the table.



8. DIAL RING must revolve freely when the dial clamp is securely tightened. However, the dial ring should not be scraped excessively; otherwise excessive clearances may be produced. When a good fit has been obtained, remove the dial ring and clean it and the dial race thoroughly. Oil the dial race with a good grade of sewing machine oil, place the dial ring carefully on the race, then replace and tighten the clamp ring.

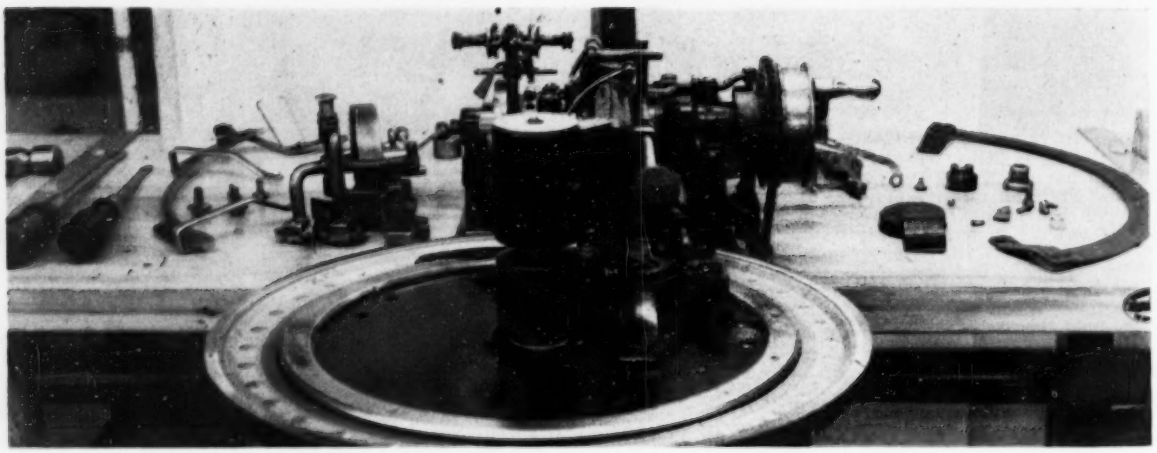


9. NEW WORM GEAR and pinion in the change-over set should be assembled in the pinion bracket, and the two setscrews in the worm gear are then securely tightened. The pinion should mesh closely with the teeth in the iron ring, but should turn easily by hand to prevent binding. Here the worm gear and pinion assembly are being installed on the dial race.



10. THREE CLAMP SCREWS and three adjusting screws for the pinion bracket are indicated by the position of the screwdrivers. The screws with the large heads are the clamp screws which draw the pinion closer to the teeth in the iron ring when tightened. The screws with the small heads are the adjusting screws which push the pinion away from the iron teeth, if tightened. No backlash should exist between the pinion and teeth in the iron ring; otherwise, the needle will not be timed to the points in the dial.

11. MOST DIAL RACES must have the two holes enlarged for the clamp screws which hold the hook attachment assembly, especially when changing the Sotco looper to a coarser gauge. This part of the work should be done while the dial is off the looper and in a vise. Use a round file to enlarge the holes, and enlarge the hole on the side next to the points so that the hook attachment assembly can be pushed forward toward the edge of the points.

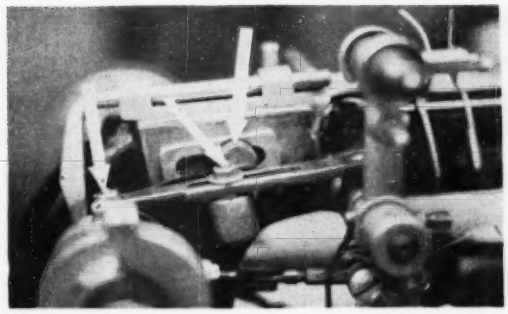


12. DIAL RING AND RACE ASSEMBLY should be removed from the vise and carefully attached to the frame. The taper pin, which holds the dial stud to the frame collar, should be driven into the tapered hole for a firm fit. Install the name plate with proper gauge marking, then tighten the setscrew on the side of the frame collar to secure the dial stud. The dial gear and shaft should be installed in the dial gear bearing, and the bearing washer and nut fastened lightly underneath the dial race to the bearing.

Place the worm on the shaft and tighten the setscrews lightly, but do not allow any up and down play between the worm and dial gear. Adjust the worm to the worm gear by moving the dial gear bearing assembly to the front or back of the dial race as required; check the worm gear to be certain that no back-lash develops, but also make sure that the gears do not bind. The dial shaft should be driven back in place through the shaft guard. Be sure that the dial shaft gear is correctly installed in the recess in the dial gear bearing. Install the two screws in the dial shaft bearing, allowing them to be slightly loose until the final adjustment is complete.

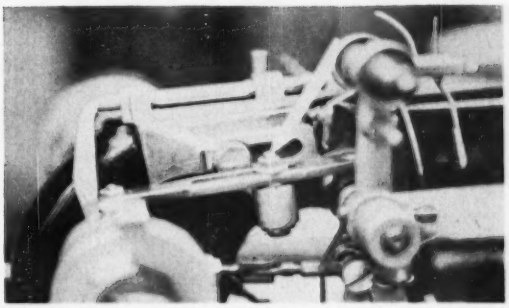
After the dial shaft is in position, it should not be forced out of line in attempting to mesh the gears. Adjust the dial gear to the dial shaft gear by moving the dial gear bearing assembly to the right or left; a snug fit must exist between the gears to prevent backlash in the dial. If it is necessary to move the dial gear bearing assembly to complete the adjustment, then the worm and worm gear must also be rechecked for fit. When a good fit has been obtained between all gears involved in the change-over, carefully check the dial for backlash, then securely tighten the clamp nut on the bearing assembly.

The machine should turn freely by hand without any binding or tight places at any place in the gear train before tightening the two dial shaft bearing screws. Replace the rack guard by fastening it underneath the dial race with three screws. Do not replace the worm guard yet, as it will be necessary to make adjustments on the worm when setting the dial to the needle, which is the next step in assembling the machine.



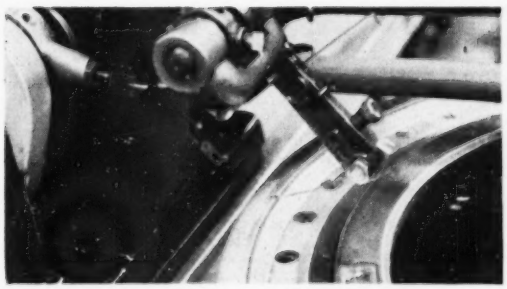
13. ADJUST the needle arm cam lever bracket and fulcrum stud so that the lateral movement of the needle will exactly equal the distance between the centers of the points; this space is the distance the dial moves on each revolution of the crankshaft. The movement of the needle is controlled by the needle arm cam. The cam is designed so that the rise and fall of the cam is equal to the movement of the dial on a 16-point looper when the needle arm cam lever bracket is set in the neutral point in the exact center of the lever.

The arrow on the extreme left in this illustration points to the roller assembly which must be always in the same relative position to the needle arm cam. The arrow in the center points to the nut on the fulcrum stud, and the arrow on the right points to the bracket clamp screw. When making an adjustment, loosen both the nut and capscrew and move the bracket forward or backward, tighten the stud nut first so that the needle arm cam roller shoulder screw will clear the bottom of the cam; then tighten the bracket capscrew securely.



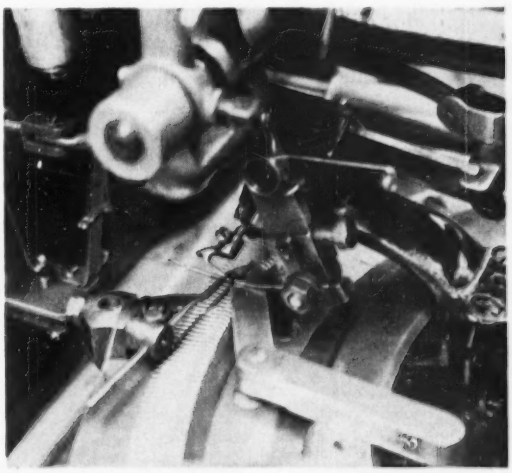
14. POSITION of the fulcrum stud and bracket capscrew in relation to the needle arm cam lever and bracket, when a 32-point looper has been changed to 12 points and the same needle arm cam and roller assembly is used (instead of changing to the tapered needle arm cam and roller assembly). When it is necessary to change the lateral movement of the needle, it should be remembered that moving the bracket back towards the operator decreases the needle movement. Moving the bracket forward (away from the operator) increases the needle movement.

When testing the adjustment, turn the crank until the needle is all the way forward in the center of the groove of a point, then turn the crank one more revolution and the needle should be in the same relative position in the next point. However, the adjustment cannot be tested until the correct needle has been installed.



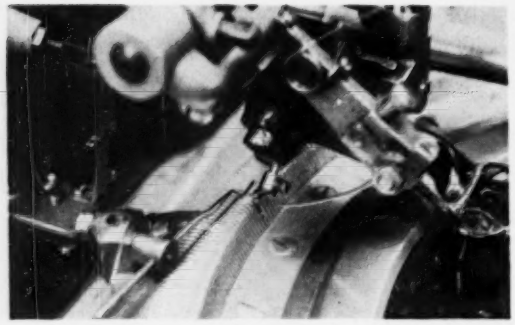
15. SELECT THE PROPER SIZE NEEDLE to fit the gauge of the looper, then insert it in the needle holder. Turn the crank until the needle arrives at a place on the machine point where contact should be made. This position is near the top of the inclined plane of the point where it is held between the segments of brass. Raise or lower the needle point until it touches the machine point lightly. This may be done by turning the knurled knob on the needle clamp adjusting screw.

If the needle point fails to align with the groove in the machine point, loosen the two setscrews in the worm beneath the machine and turn it to the right until the alignment is correct, then tighten the worm setscrews. Turn the needle to the end of its forward stroke and make certain that the small part of the needle, which is just in front of the taper, lines up with the point groove. When this adjustment is correct, the needle point may fail to center the point groove when it first touches on the forward stroke, but this can easily be adjusted by bending the needle slightly to the right or left by a slight pressure of the forefinger. Make a final check on the worm by testing it for up and down play, then tighten the setscrews securely.



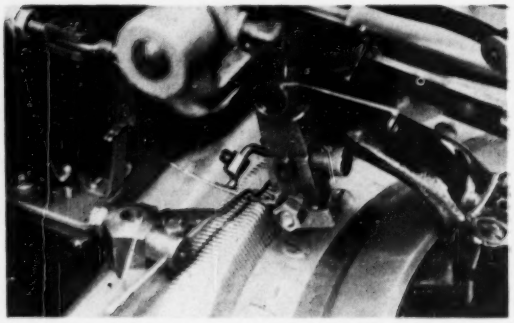
16. IN CHANGING a medium gauge looper to either a coarse or fine point, it will probably be necessary to adjust the height of the dial assembly to allow clearance between the needle and points for the stitch formation. To make the adjustment, turn the crank until the needle is at the end of its forward stroke, then try a .015" feeler gauge under the needle to determine if it clears the points just ahead of the brass segments. If it is necessary to make an adjustment, loosen the two setscrews in the dial shaft bearing, then raise or lower the dial by loosening the setscrew in the dial race where it is attached to the dial stud. Raise or lower the adjusting nut on the bottom of the dial stud.

When the clearance is correct, tighten the dial stud setscrew and the two dial shaft bearing screws, but be careful that the dial shaft gear does not bind against the dial gear. Install the fabric guard, allowing a few thousandths of an inch clearance between the guard and bottom of points to prevent excessive wear. The fabric guard support can be adjusted by means of a screw located in the machine base, but the arms must be adjusted by bending.



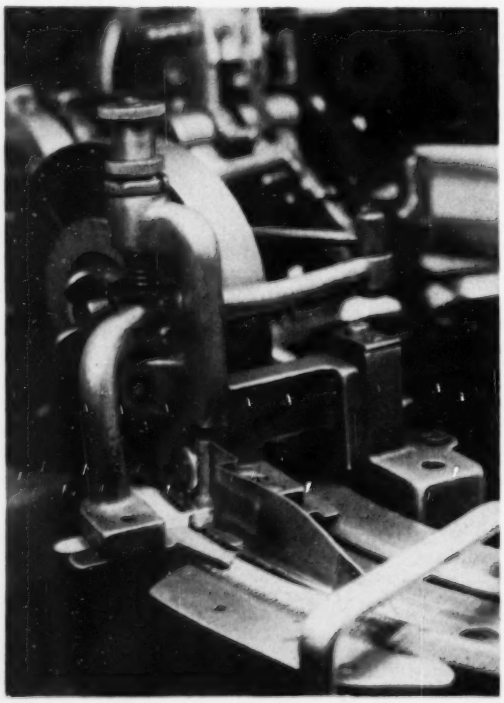
17. INSTALL NEW HOOK and shank in the looper hook attachment, then replace it on the dial race in such a position that the throw of the hook is equally divided over the points. Turn the crank slowly until the hook cam is at the end of its forward stroke, and the position of the hook is back over the taper of the point clamps. Then turn the crank slowly until the needle starts to pass inside of the hook at a place midway between the heel and toe thread opening. Make certain that the point of the needle does not hit the hook, and also check the clearance between the hook and needle to see that it is not too great. Shift the looper hook bracket to either right or left to get the correct setting.

Rotate the crank until the hook cam is drawn further backward and the hook is directly over the stitch finger, then raise or lower the hook by adjusting the left screw on top of the looper hook bracket until there is about 1/16" clearance between the hook and stitch finger. This illustrates the approximate setting of the hook when at the end of its backward stroke. The axis of the heel and toe of the hook is not vertical, but is on an inclined plane so that the hook will drop the needle thread at the proper time.



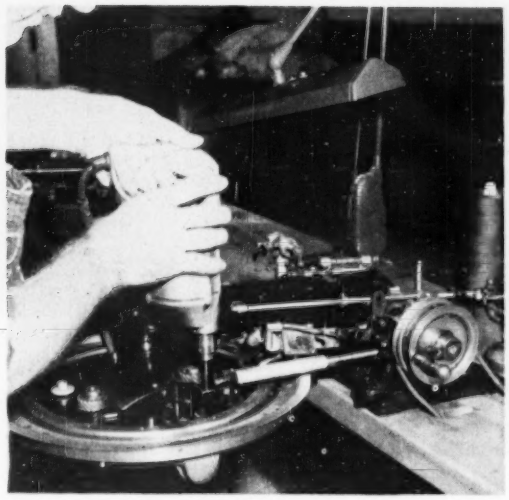
18. FULL-FASHIONED LOOPER HOOK need not be exchanged when converting to 38 or 40 points for seamless, but a longer hook is included in the change-over set for half-hose looping. The longer hook and hook shank are necessary because of the increased height of the coarse points. It is necessary for the point of the hook to go past the needle by about 1/16" to ⅛"; therefore, a longer stroke of the hook cam is required. This will increase the hook travel on its forward stroke. When the hook has completed its forward motion and starts rising on its backward arc, it should barely touch the scarf of the needle.

If the hook is too close to the needle, loosen the bracket screw nearest to the points and shift the bracket to the right. If the hook misses the needle as it begins the backward stroke, loosen the bracket screw nearest the dial stud and shift the back end of the bracket to the right. This will move the looper hook closer to the needle. The crank should be turned slowly through one revolution following each adjustment in order to check both the front and back setting of the hook in its relation to the needle. This illustration shows the correct position of the hook at the end of its forward stroke.

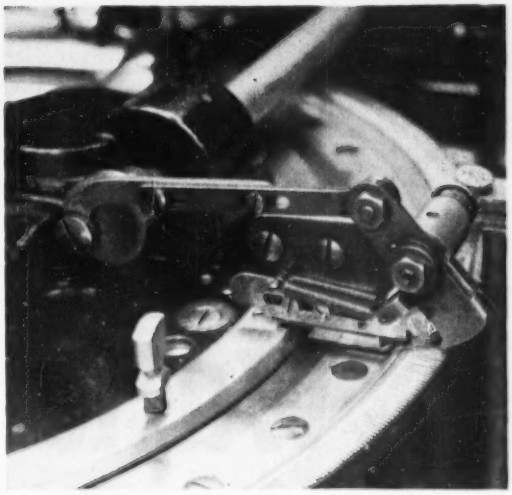


19. REPLACE BRUSH AND TRIMMER assembly by first removing the brush, then placing the bracket in such a position that the curvature of the guard will conform to the curvature of the dial ring. Securely fasten the attachment to the dial race by means of the two base screws. Replace the brush, but wait for a sock or stocking to be properly placed on the points before making the adjustment for height. The next step is to remove the upper and lower knives, and sharpen them on a good grinder. Do not attempt to hold the knives manually while grinding if satisfactory results are expected.

In replacing the knives, first lock the upper knife lever assembly in a raised position by means of the knurled nut, then replace the lower knife in the block with the cutting edge even with the outer edge of the brash segments, and tighten the set-screw securely. The taper on the bottom side of the lower knife must clear the brass underneath it by about .002" or .003". Check carefully to prevent damage to the brass. Install the upper knife, let it contact the lower knife, and adjust the lock and check nuts so there is no friction between knives.

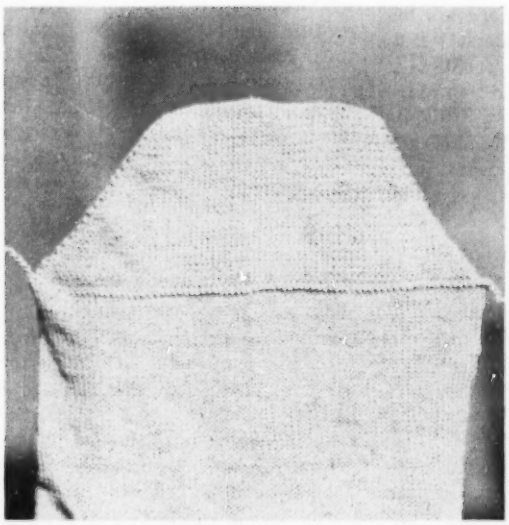


20. LOOPING MACHINE has been dismantled, changed from a 32-point to 12-point, and is now completely assembled except for the installation of the chain clipper. The time required for the change-over is slightly more than three hours of work, but the time required for the work will vary somewhat for each machine. There is considerable variation in the amount of scraping necessary in fitting the dial ring. The next step is to loosen the screw in the rear dial shaft gear, and also the screw in the front dial shaft gear, then drive the dial shaft forward until it clears the dial gear bearing. Select the proper size drill bit for a No. 2 taper pin, and drill through the dial gear bearing and dial race at a point underneath the dial shaft gear. Finish the hole with a No. 2 taper pin reamer, then pin the bearing fast to the dial race so that it cannot move out of position. Replace the dial shaft and gears after carefully removing all chips from drilling.



21. INSTALL THE CHAIN CLIPPER on the machine as illustrated here. Loosen the knife bracket clamp screw and set the chain guard within about .003" of the brass ring, then tighten the screws firmly. Set the lower knife in a position that gives the desired length to the chain left on the edge of the stocking. Be sure that the outside chain kicker has .003" clearance above the brass ring. Keep the knives properly ground for best results in clipping the chain.

The looping machine should now have a very thorough oiling with a good grade of sewing machine oil. It is ready for test looping, at which time the final adjustment can be given the tension, brush, and trimming attachment. The clipper may also need a final adjustment, but if the change-over has been carefully made, the machine will operate satisfactorily.



22. THIS LOOPED SOCK is a sample of the work that can be produced by converting full-fashioned loopers to half-hose and seamless looping.

HOW SOME MILLS PROCESS LOOPLESS-TOE HOSE

Loopless-toe hosiery is knitted by a method of continued narrowing beyond the regular looping course, until the fabric in the toe covers only about eight needles on the knitting machine. Then from eight to twelve more courses of the same width are run to form the toe-tab. This type of stocking has a round knitted toe instead of the square looped toe.

The stockings are counted into dozens and tied while at the knitting machine, and are then treated in a steam or hot water bath before seaming. One of the most popular methods of treatment is by use of the Lydon steam box, wherein the stockings are treated at dry bulb temperatures of approximately 205 F and wet bulb temperatures of 188 F for periods up to one hour. The steam treatment aids in preventing picks by presetting and shrinking the nylon fabric. This also enables the seamers to do a better and faster job of seaming, which is the next step in that the looping operation has been entirely eliminated.

Do you consider your waste handling cost excessive?

If so, you may profit by spending a few minutes to read what management at Scottdale Mills did to reduce labor cost, conserve floor space, and obtain better separation of waste—they installed a

Waste Carousel

Staff Prepared
EXCLUSIVE

MANUAL HANDLING of waste at Scottdale (Ga.) Mills has been reduced to such an extent that Superintendent J. Alex Fife transferred six men (from three shifts) off this operation to other jobs in the plant.

This substantial saving in manpower is the result of a combination of things, according to Mr. Fife.

(1) Relocation of the waste house—formerly it was several hundred yards from the main mill building; now it is adjacent to the opening room.

(2) Utilization of a rotating waste bin and a one-man-operated baling press in the new waste house.

(3) Modification of the vacuum-type card stripping system to convey all categories of waste except yarn and rags to the waste house, dumping it directly into the rotating waste bin.

Hub of Scottdale's waste handling system is the rotating waste bin, or "waste carousel" as it is called, as shown in the accompanying illustrations. The carousel, 22 feet in diameter and 10 feet high, consists of 15 open-top bins, each designed to hold a bale of the type of waste for which it was intended.

By storing picker motes, card fly, card toppings, clearer waste, and carding and spinning room sweeps in the carousel, need for a large parking area in the waste house for trucks in which waste could accumulate was eliminated. Consequently, the size of the new waste house was reduced and construction costs lowered accordingly.

Benefits other than savings in manpower and floor space are being realized at Scottdale: (1) Better separation of waste products is provided. This should produce more revenue for the mill when waste is sold. (2) Waste made on each shift is baled on each shift, rather than being permitted to accumulate for personnel on another shift to handle.

How System Works. Briefly, here is how the waste is handled at this 17,660-spindle, 600-loom mill which makes ducks, sheetings, corduroys, and osnaburgs (refer to the accompanying diagrammatic sketch and correspondingly numbered photos).

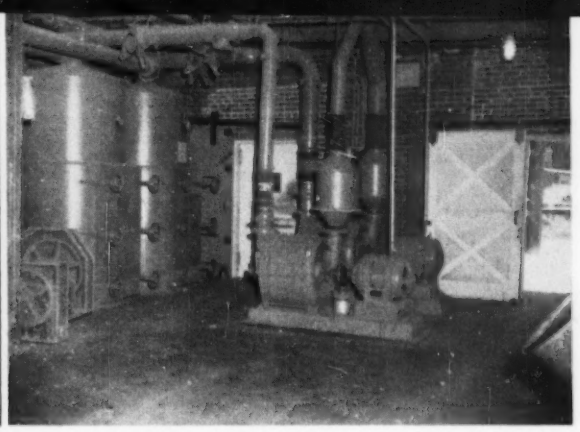
1. Waste is conveyed through two vacuum lines from the card room in the main mill building to two dump-type waste receiving tanks mounted directly above the carousel and enclosed in a penthouse on the roof of the new waste house. (Two complete Abington vacuum stripping systems **(1A)** are utilized for Scottdale's 165 cards—one line for 86 cards and the other for 79).

If only one vacuum pump had served all of the cards, it would have been required at all times for the stripping operation only. The second pump permits handling of other categories of waste. Also, when the other unit is down for routine maintenance or repairs, this second pump serves as a reserve, making it possible for the card stripping to continue uninterrupted. This versatility was provided by interconnecting the two vacuum lines just ahead of the pumps.

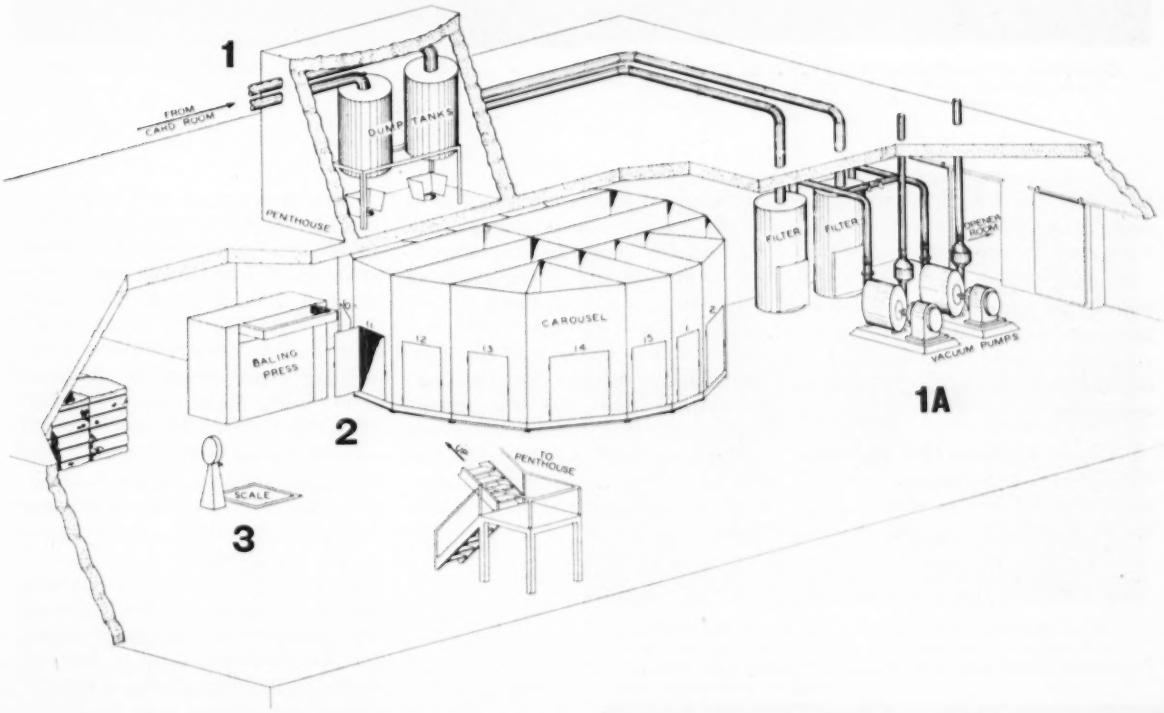
Upon receipt of instructions from an operative in the card room, the waste house man (he also grinds waste in the adjoining opening room) ascends the stairs to the penthouse, rotates the carousel until the proper bin is directly under the tank to be emptied, and dumps waste through a chute in the floor (waste house roof) into bin in carousel below.

2. When a bin is full, the waste house operative rotates the carousel until that compartment is near-

1 **IN PENTHOUSE** operative prepares to dump waste out of tank into carousel on floor below.

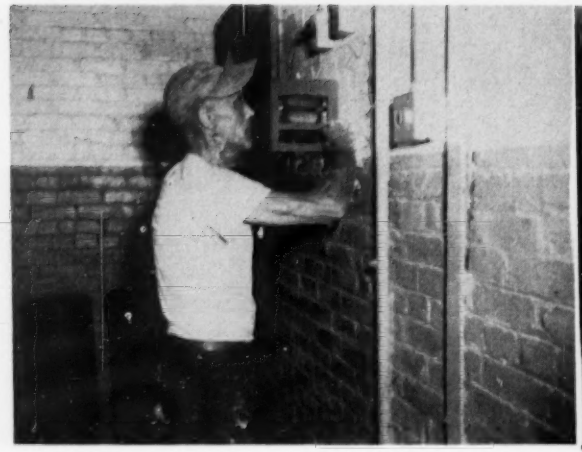


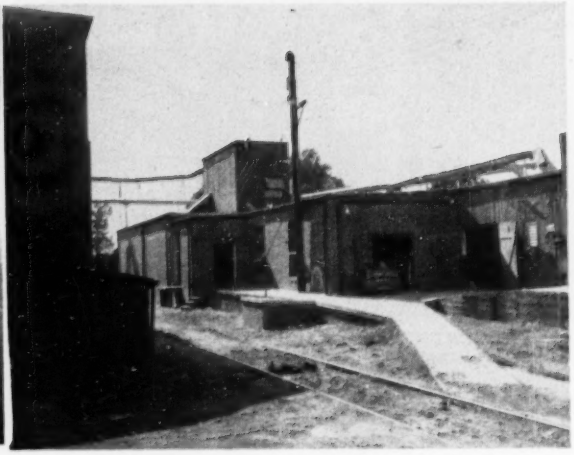
1A **TWO VACUUM PUMPS** are located in one corner of waste house. Carousel (not shown here) is to left.



2 **PULLING WASTE OUT** of bin in carousel for baling in press, portion of which can be seen at left.

3 **WASTE IS WEIGHED,** tagged, and then placed in storage in same room.





Operative in card room calls . . . . . man in waste house

est the Economy baling press, opens the door, rakes the waste over into the press, and bales it.

3. Bale is removed from press, placed on hand trucks, taken to platform type scales nearby, weighed, tagged, and carried to storage area in the same room to await sale.

Unique Features of Carousel. While the waste carousel idea is not a new one, the revolving waste bin at Scottdale is unique in that (1) all of the area occupied by it is utilized for waste storage and (2) the bins vary in size according to the density of the types of waste to be stored in them.

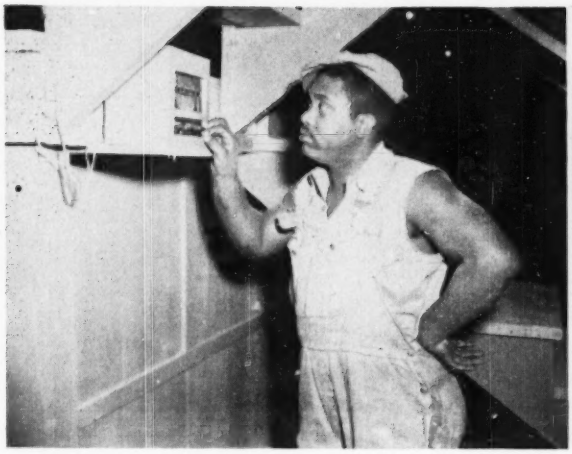
Use of the carousel idea was recommended to the mill management by a Werner Textile Consultants engineer, one of the members of his firm having conceived the arrangement several years ago and observed its successful operation in a North Carolina cotton mill.

Consideration of this engineer's suggestion led to the decision by Scottdale's management to consult with the Atlanta sheet metal contracting firm, Oscar W. Gardner & Sons, regarding the design, cost, and possible construction of a revolving waste bin to be installed in the waste house soon to be built. Mr. Fife presented the general idea of the carousel to sheet metal engineer William Edward Gardner who, after several conferences to determine exact requirements of the unit, delivered to the mill complete plans and specifications for its construction. The proposal was accepted and an order given for Mr. Gardner's firm to proceed with the building of the waste carousel. Installation was completed in April of 1952.

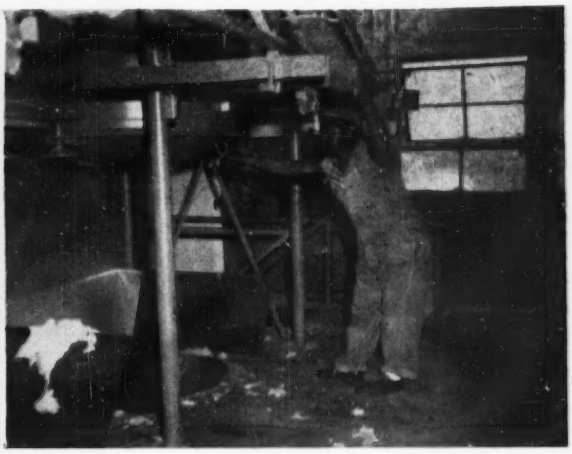
Commenting with pride on this equipment which was designed by his son who was killed in an airplane crash on Dec. 24, 1952, Oscar Gardner stated that a special ad-

←

COLLECTING WASTE. These photos show various categories of waste being collected by vacuum at Scottdale. In each instance the waste is drawn to one of the waste receiving tanks located in the penthouse on the roof of the waste house (see illustration on preceding page). **Upper photos:** left, motes are taken from finisher section of a picker; right, operative prepares to strip a card cylinder and doffer. **Lower photos:** left, removing card fly from under licker-in at back of card; right, card and spinning sweeps are put into take-down pipe located in card room.



Receiving instructions, ... waste house operative ascends stairway to penthouse and dumps waste out of tank through chute in floor into proper bin in carousel below.



vantage is the fact that the design of the carousel can be readily altered to conform to the requirements of any mill. He also is pleased with a feature of the design which eliminates the possibility of waste hanging to protrusions or rough places on the bin walls—every sheet metal joint is covered with smooth angle iron.

Waste Handling Operation in Detail. At Scottdale one operative on each shift strips all of the cards. So, when he is stripping cards with one line of the vacuum system, the other may be used for conveying another type of waste to the waste house.

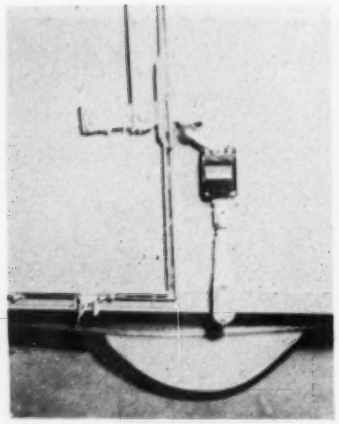
Details of the waste handling procedure can be easily understood by assuming that the stripper operative has finished stripping the No. 1 line of cards and he wants the waste receiving tank dumped so another classification of waste can be placed in it.

He must call the man in the waste house and tell him what is in tank No. 1 and instruct him to dump it into the carousel. For this purpose a two-station intercommunication system is provided—one station in the card room and the other in the waste house. Loud horns are used in both locations to call operatives to the intercom stations.

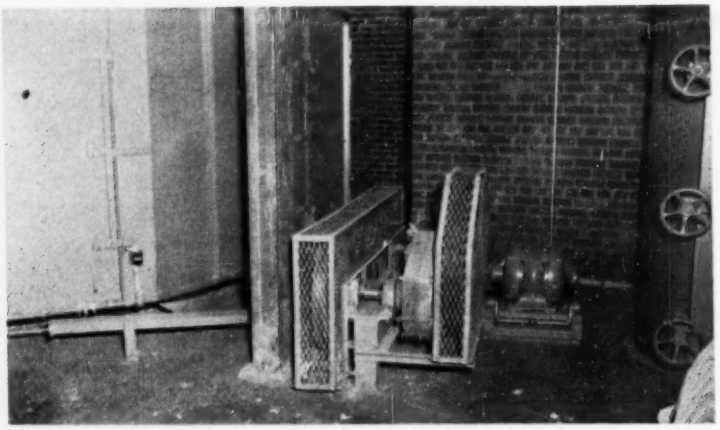
Now the stripper operative blows the horn in the waste house and the waste house operative goes

Finding Bin No. 2 full of motes, he descends stairway to main floor, rotates carousel until Bin No. 2 is opposite bale press, and opens door and rakes motes into press well in floor.

Motes are baled, weighed on platform type scales nearby, tagged, and placed in storage in the same room.



DOOR PROTECTOR. When a door to one of the bins is open, the carousel cannot be rotated. Each of its 15 doors is equipped with the low voltage interlock Microswitch arrangement shown here to prevent damage to them. Just below it the carousel drive cable and one of the ten rubber-lined shoes can be seen.



THE CAROUSEL DRIVE. The simple cable-over-sheaves driving mechanism is located in an out-of-the-way space on the main floor between the vacuum system filter tanks (part of one can be seen at extreme right) and the carousel. Moving parts are enclosed with guards. Note heavy angle iron over cable between driving mechanism and carousel to prevent injury to operatives.

to his intercom station, acknowledges the call, and is told to dump the card fly from tank No. 1.

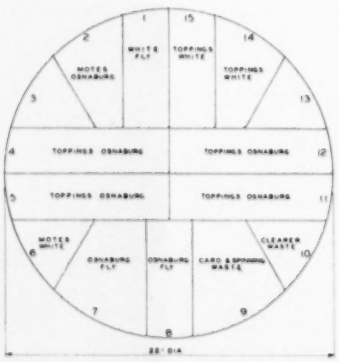
Upon receiving his instructions, the waste house operative immediately goes to a carousel control switch mounted on the baling press, which is only 32 inches from the machine, and throws it in the "up" position so that the bin can be operated from the switch in the penthouse. (This is a safety feature to insure that the carousel is operated from either the penthouse or the main floor, not both at the same time.) He ascends the stairway to the penthouse and here again he must throw a carousel control switch in the "up" position before he can rotate the waste bin.

Then by means of a push-button control the operative turns the carousel until one of the bins designated to receive card fly is directly below the chute in the floor under tank No. 1.

Closing the vacuum line valve to relieve the pressure on the tank while being dumped, the operative slides the tank door open and the card fly falls directly through the chute into the bin below. When the tank is empty, he closes the door, opens the vacuum line valve, and notifies the card room operative that the tank has been dumped by throwing a switch that turns on a green light in the card room.

Throwing the carousel control switch to the "down" position so that it can be operated from the main floor only, the operative goes downstairs to resume his duties, either grinding waste in the adjoining opening room or baling, weighing, and storing waste from the carousel.

In a few minutes the card room sweeper may call and say that tank No. 2 is loaded with card and spinning room sweeps, or a picker room operative may report that a tank is loaded with motes. The procedure previously outlined is repeated by the waste house operative.



BIN ARRANGEMENT. This sketch shows shape of bins in Scottdale's carousel. Each was designed to hold a bale of the waste indicated thereon. Note that the entire area is utilized for waste storage.

Carousel Construction Details. The walls and partitions of the 15 sheet metal bins (shapes shown on accompanying sketch) are made of welded 16 gauge black iron and the floor from 10 gauge black iron. For easy removal of waste, each bin is equipped with a sturdily built angle-iron-enclosed double door.

The bins are mounted on a six-inch channel iron frame supported by 14 wheels running on two separate but concentricly formed channel iron rings mounted on the concrete floor surface and held in place by anchor bolts.

The radial supporting channels are connected at the center of rotation to an adequately braced, floor-mounted, 18-inch stud by way of a ball-bearing mount to the stud. Access to this bearing and to the undercarriage of the bins and wheels is provided by a trench 24 inches wide by 18 inches deep by 12 feet 3 inches long formed in the concrete floor when it was poured.

The bins are driven at a speed of about 1 rpm by a cable-over-sheaves driving device utilizing a 15 hp, 1200 rpm motor and appropriate speed reducing mechanism. The cable drives a series of

Lest They Forget Machinery Replacement Costs

This is the provocative title of a booklet presented by Cone Mills Corp. to those attending the recent meeting of its 876 employees in Greensboro who have had 25 years or more of service with the company.

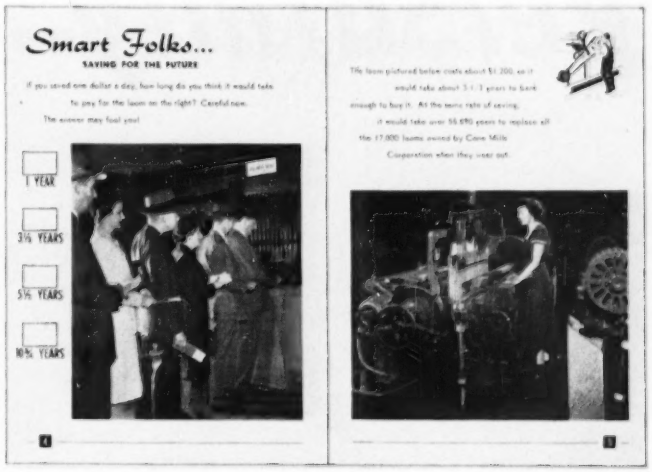
Purpose of the booklet was stated by Herman E. Cone, the president of the company, in a message to the reader on page 1: "Many of our employees have become so accustomed to their daily work with the machinery they operate that I'm afraid very few of them realize how much it will take to replace these machines when they wear out. In order to let you have some idea of the huge amount of money that this company will have to spend to keep its plants modern and efficient, we hope to bring some of the costs home to you clearly and simply by comparing them with prices of other things with which you are familiar."

Here is one of the vivid comparisons presented on facing pages (see illustration):

Left page: If you saved a dollar a day, how long do you think it would take to pay for the loom on the right? Careful now. The answer may fool you! (Below is photo of several people lined up at a tellers window in a bank to make savings account deposits. Along side it space is provided for the reader to check 1 year, 3 1/3 years, 5½ years, 10¾ years.)

Right page: The loom pictured below (close-up of loom and weaver) costs about $1,200, so it would take about 3 1/3 years to bank enough to buy it. At the same rate of saving, it would take over 55,990 years to replace all of the 17,000 looms owned by Cone Mills Corporation when they wear out.

Some other comparisons made were: A $10,000 home with $2,000 worth of furnishings can be had for the replacement cost of a single picker; 30 average American families can be clothed for one year with the replacement cost of one spinning frame; for the price of one drawing frame, 11 television sets costing $275 each could be purchased; a four-year college education for 22 people can be provided for the cost of a single printing machine; 237 families could stock their pantries each week for the price of one 40" card.



ten rubber-lined shoes placed equidistant around the periphery of the carousel.

To safeguard personnel from injury by the waste carousel several steps were taken:

(1) The machine was located in the room so that no columns or walls are closer than 18 inches to any part, thus assuring a man would not be crushed to death by contact with the moving machine.

(2) Distance between ceiling and floor was considered and machine located so that it would be impossible for a man to get any large part of his body over or under the machine and subject himself to injury.

(3) Moving parts of the driving mechanism are enclosed with guards made of angle iron and heavy wire mesh. Also, the exposed cable between the driving mechanism and the carousel is covered with heavy angle iron.

(4) A low-voltage interlock Micro switch arrangement on each bin door prevents damage to doors by jamming against columns or walls. When a door is opened, the carousel cannot run. Should one of these switches burn out, however, there is a master switch with which to by-pass them, but a bell rings to warn the operator that the system is not working.

Reworkable Waste. When this article was written, a third dump-type waste receiving tank was being installed near one of the opening lines in the opening room so that reworkable waste can also be conveyed there by the vacuum system, further simplifying waste handling at Scottdale.

AERIAL VIEW of the new finishing plant at Sevier, N. C.

Versatility— the keystone

New Sevier plant finishes counts

YARN IS RECEIVED from American Thread's five southern spinning mills in the company's own fleet of trucks. Yarn for commission finishing may arrive by truck or by rail.

Staff Prepared

EXCLUSIVE

TAKE: several types of yarn and thread—sewing, knitting, embroidery, rug, others — bleach some, mercerize some. Dye: in hundreds of shades. Add: a commission finishing business. Put up: on cones, tubes, spools, balls, skeins.

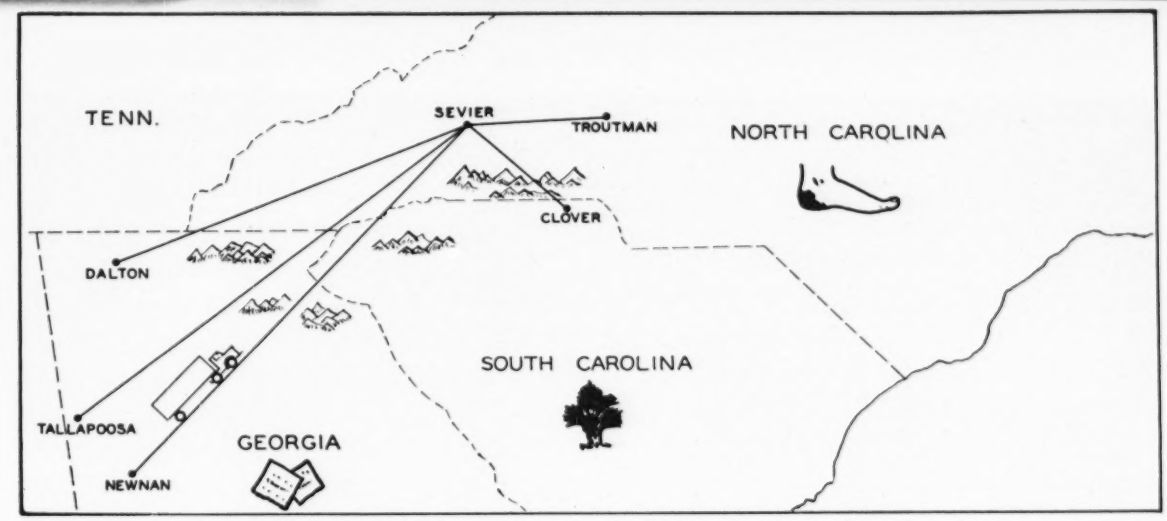
Result: finishing details vary from day to day, hour to hour; separate items in grey and finished storage run into many thousands.

That's the problem faced at the new American Thread Co. finishing plant at Sevier, N. C., in finishing for its five spinning mills in the Carolinas and Georgia and for outside customers.

Tight control of production and inventory, efficient materials handling, versatility in personnel and machinery are the keystones on which smooth flow of yarn from receiving platform through processing to the shipping platform depend.

The dyehouse at the new finishing plant is typical of the close

★ **Machinery Modifications** ★ **Large Packages**



FIVE SPINNING MILLS of American Thread Co. send yarns to Sevier for finishing.

at american thread company

from embroidery yarns to rug yarns

control kept on production. To forestall the errors which seem almost inevitable when such a multitude of shades is dyed, all dyes are mixed in a mezzanine drug room and piped to the individual machines. A plant-wide pneumatic dispatch system further expedites smooth production.

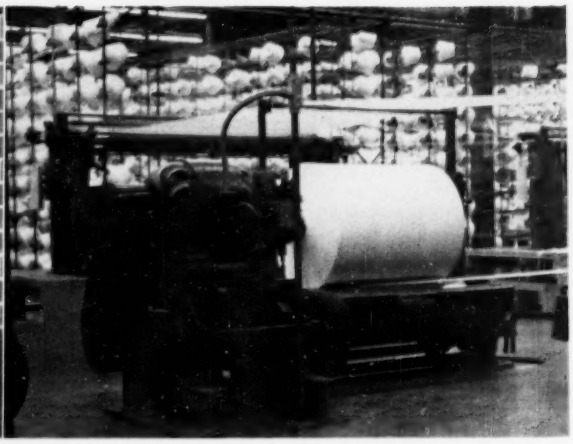
Yarn is never touched by hand at Sevier except in actual processing. All lifting is done by electric hoist, hauling by overhead rail or lift truck. Loads are always palletized, never trucked singly. Pallets are often dual-purpose, also serve as hand trucks or shipping containers.

Versatility of machinery becomes indispensable when such a variety of goods is processed. Throughout the Sevier plant, machinery has been modified to accommodate a wider range of yarn types, increase package size, or to do a better job. On occasion, machinery is built from scratch by American Thread where no satisfactory commercial model is available.

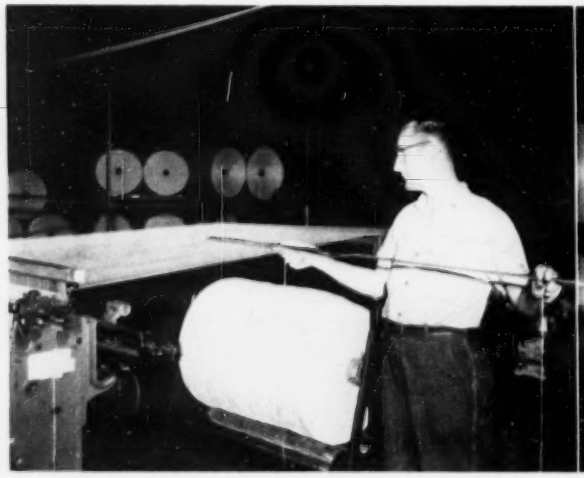
INTER-PLANT SHIPMENTS of coned yarn are made in Cargotainers, shown here stacked in grey storage. Each container is identified by tag; location of container in warehouse is recorded so that it may be found quickly.

★ **Materials Handling** ★ **Production Control**

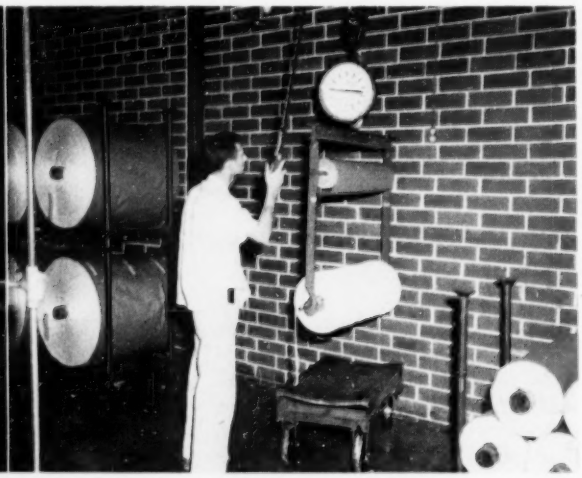
CARGOTAINERS have plastic lining to protect yarn in transit; fold compactly for return shipment to spinning mills. Two sizes are used at American Thread—a small "economy" size designed to fit trucks, and a large size for intra-plant materials handling.



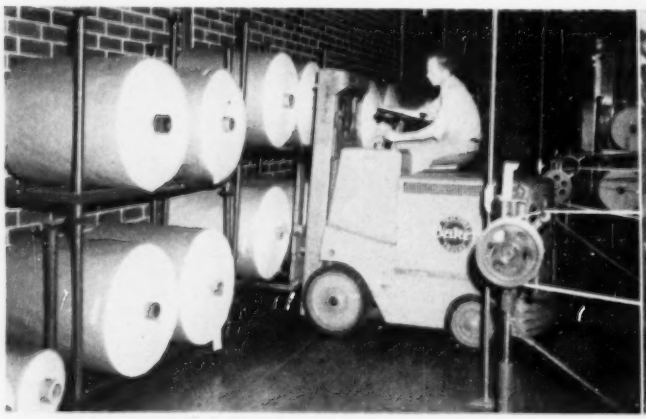
PACKAGE DIAMETER in ball warping is double that anticipated in original design of warper, made possible by use of jumbo quillers (page 109). Bar is necessary to hold yarn clear of ball. All ball warpers are being equipped with Reeves variable-speed drives for flexibility.



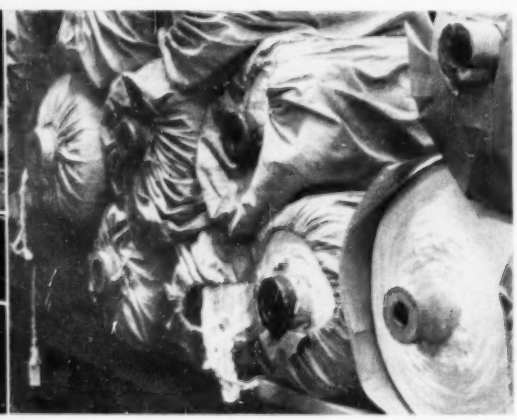
LEASES OF COLORED YARN are inserted at ball warper, prevent smashes in later processing at high speeds where white leases are difficult to see.



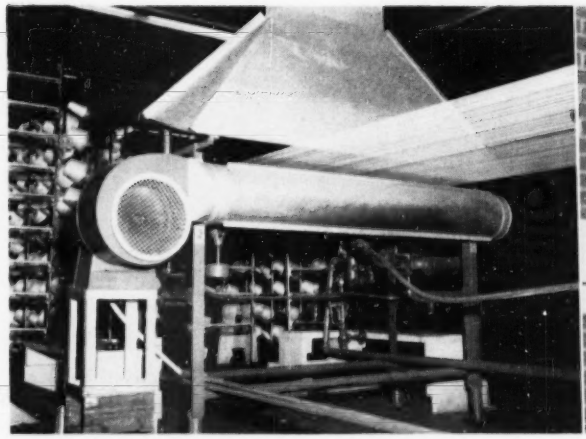
SCALE BUILT INTO ELECTRIC HOIST eliminates lifting by operative, saves time. After weighing, warps move by overhead rail to Palatier.



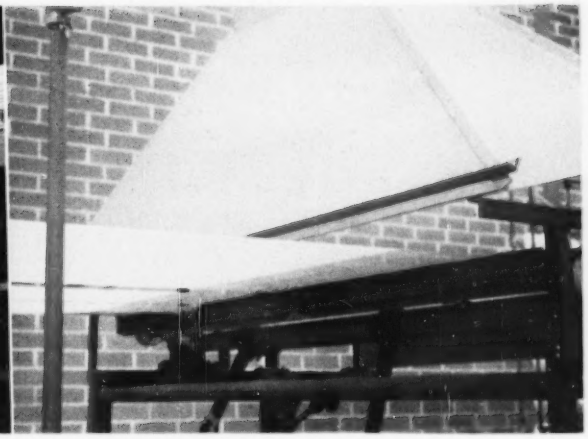
PALATIERS holding four large-diameter warps are moved by fork truck to next process or to storage. Individual ball warps are not handled until ready for processing. American Thread believes that the less handling by hand, the better; handle the pallet, not the package.



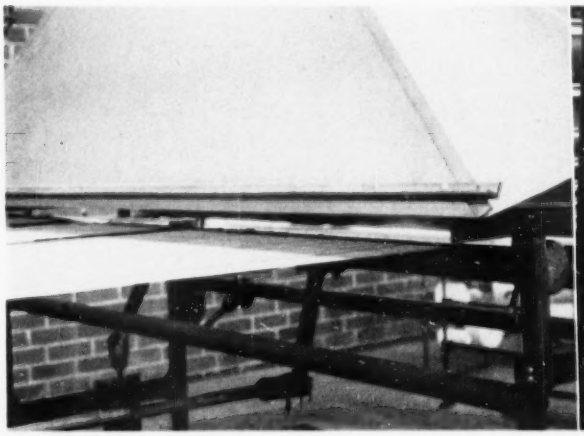
YARN FOR COMMISSION FINISHING usually arrives at Sevier on ball warps; some is received on cones. These smaller warps (not from American Thread), although covered, have damaged and tangled ends from rough handling before they reached Sevier; waste and loss in production result.



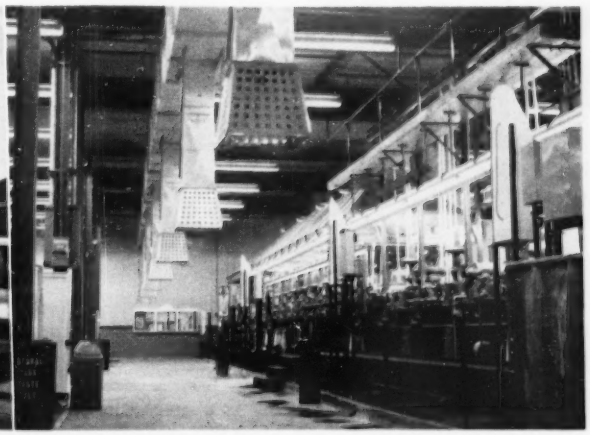
SINGEING MACHINE HAS BLOWER which sends jet of air up through warp, blows soot from yarn into exhaust hood. Before this installation, some carbon remained on yarn after singeing.



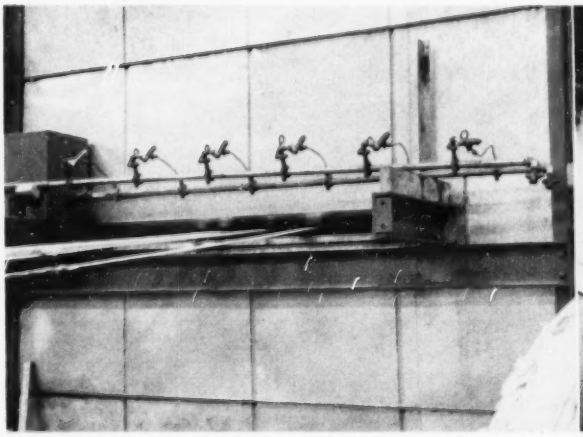
SOOT IS BRUSHED FROM YARN on singeing machine. Brush passes up through yarn, soot is drawn into exhaust.



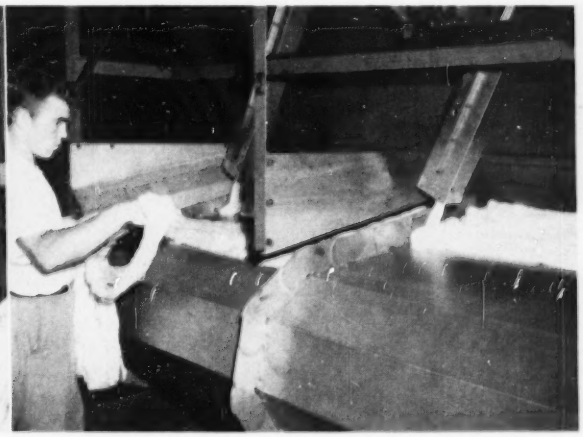
SOOT BRUSH. Brush as seen from top of yarn sheet. Brush and blower are to be used together, will probably reduce soot even more.



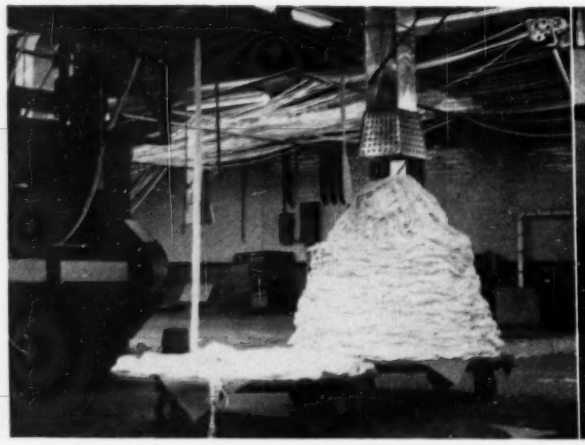
MERCERIZING RANGE IS WELL LIGHTED by strip fluorescents along each side; they replace spot lights previously used. Stop motion along mercerizer provides for emergency stops. Drop vents uniformly distribute air from heating and cooling systems through baffles just above the head level.



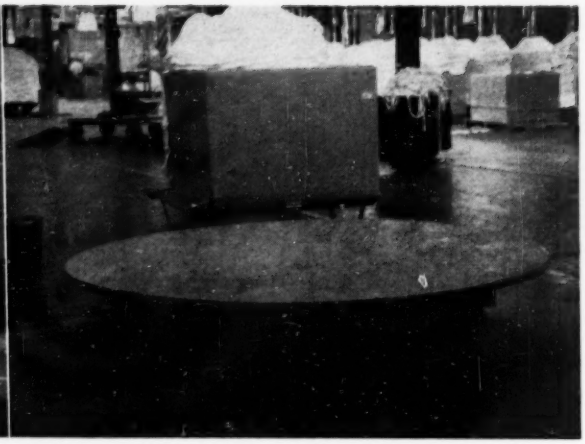
STATIC IS REDUCED by adjustable water sprays at end of dryer following mercerizer.



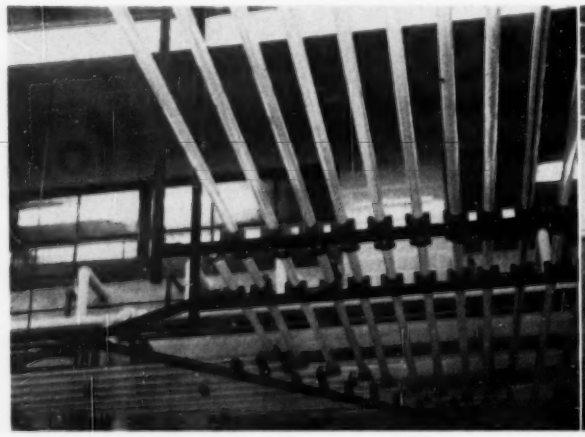
CONVEYOR TRAY DRYER takes either chain warps or skeins; one side may be used for each if desired. In this photograph, chains are being fed automatically and continuously to the dryer conveyor; the operative demonstrates how skeins are placed.



CIRCULAR PALLET-TRUCK receives chain warp from tray dryer. The pallet-truck may be pulled on its casters or carried by fork truck.

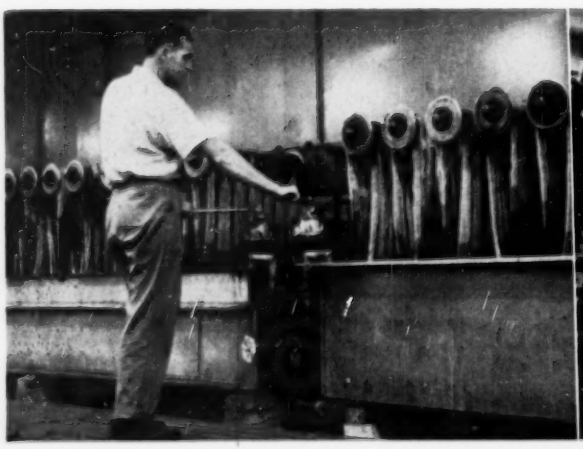


CLOSE-UP OF CIRCULAR PALLET-TRUCK. Another type of pallet can be seen in background.

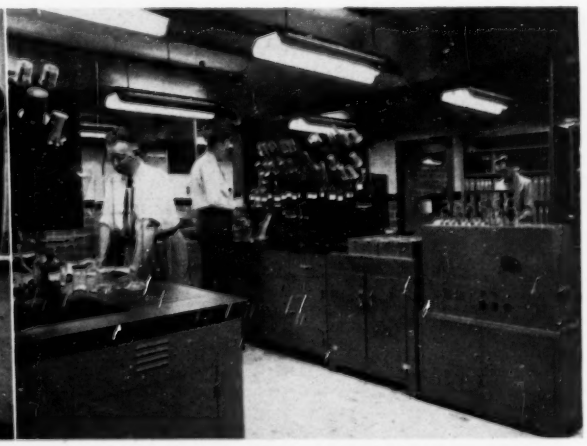


MEZZANINE DRUG ROOM in dyehouse provides full view of dyeing operations, enabling close control. All dyes are mixed in drug room, reducing costly errors. On signal from dyehouse, dye solution flows by gravity through glass pipes into machines.

PNEUMATIC DISPATCH SYSTEM in office of superintendent of dyeing is another time-saver. System is plant-wide.



BUHLMAN MACHINE has been converted to dye variegated shades. A push on the lever raises and lowers the skeins. Formerly this operation required two men to raise and lower sticks; now one man runs two machines.



CHEMICAL AND DYEING OPERATIONS are controlled from this well-equipped laboratory. At right is one of two English-made Marney dyeing machines for automatic test-skein dyeing. →

Apparel Fabric Containing Ramie Now Produced on Commercial Scale

The first apparel fabric in America containing ramie fiber produced on a commercial scale was shown to the press recently at the Princeton Club in New York City by Charlton H. Williams, president of the Swift Manufacturing Company of Columbus, Ga. The new fabric, which has a unique combination of qualities including extraordinary strength, wrinkle resistance, spot repellence, washability, and economy, was developed by Swift in cooperation with Newport Industries, producers of the ramie fiber, and American Cyanamid Company's Textile Resin Department.

Until recently the only methods known for separating and cleaning the useful fibers from the stalk of the ramie plant required exhaustive hand labor and its cost was prohibitive. Late discoveries of methods to separate and clean the fiber have now made ramie fiber commercially available.

[Many of TI's readers will recall the 10-page article "Ramie Today" which appeared in our August, 1948, issue, pages 99, 101, 105, 107, 109, 111, 113, 115, 117, 119, 172, and 173. It was the report of a study of ramie and its processing methods conducted at the State Engineering Experiment Station of the Georgia Institute of Technology, under the sponsorship of Johns-Manville Corp., and at the Johns-Manville Research Center, and contains much information about the properties of the fiber. Our supply of reprints has long been exhausted, but those interested can obtain photographic reproductions from U. S. Department of Agriculture Library, Washington 25, D. C. — The Editors.]

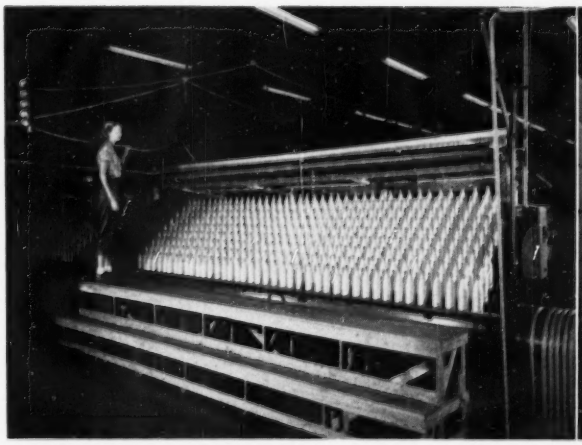
The cloth that was shown is a blend of ramie, cotton, and viscose staple. According to Mr. Williams, the proper fiber content was determined after many experimental blends had been tested. It was found that the ramie in the blended yarns imparted the advantages of the ramie to the fabric without making cost prohibitive. The final step, in the engineering of the new fabric, was the development in cooperation with the American Cyanamid Company of a finish which increased wrinkle resistance, wash fastness of dyes, stabilization, and added the quality of spot resistance.

The new fabric was shown in spectator sport shoes, daytime handbags, casual sportswear, tailored hats, men's sports coats, waistcoats, sport shirts, and children's wear.

Among the tests shown, demonstrating the unusual functional qualities of the fiber and the fabric were a single ramie shoemaker's thread suspending a twelve-pound weight, spot resistance of the fabric to tomato juice, grape juice, wine, and Coca Cola, and evidence of wrinkle recovery.

The ramie fiber is grown on the plantations of Newport Industries near the Everglades in Florida. The plant reaches a height of between five to eight feet and grows so rapidly that at least three cuttings a year are possible. It is decorticated and processed near by, and then cleaned and cut into staple lengths. The fibers obtained from the stalks are from eight to twenty inches long and when cleaned and combed out are extremely fine and silky. For spinning into the Swift blended yarn, the fibers are cut into 2½" staple.

Wearing apparel of Huntclub fabric containing ramie should be in retail stores by spring of 1954.



WHITIN JUMBO QUILLER winds 20-oz. package from chain warps; finished yarn has fewer knots.

FINISHED GOODS are shipped in cardboard containers.

DISCUSSION PANEL included, left to right: Remsen Bauknight, Alice Mfg. Co., Easley, S. C.; James Jester, Riegel Textile Corp., Ware Shoals, S. C.; J. C. Godfrey, Calhoun Mills, Calhoun Falls, S. C.; and W. M. Pittendreigh, Riegel Textile Corp., Ware Shoals, S. C.

Homogenized Size

North and South Carolina mills relate their experience during STA meeting at Clemson College

Staff Report

REDUCED starch consumption, shorter preparation time, and less hard size were some of the results that mills using homogenizers reported to members of the South Carolina Division, Southern Textile Association, at their fall meeting at the Clemson (S. C.) Textile School on October 31.

A questionnaire sent out prior to the meeting to mills using homogenized size was answered by 33 mills in North and South Carolina, and their experience formed the basis of the discussion.

The mills replying to the questionnaire have homogenizers with capacities ranging from 125 to 650 pounds per hour. Of these mills, 90% have their entire production on homogenized size. Although the majority are using homogenized size on cotton, several are using it on rayon.

Of this group of mills, about 75% use pearl starch; the remainder use potato starch, thin boiling starch, or a mixture of thin boiling and pearl starches.

Cooking procedure varied widely among the mills polled. Some mills bring to 170 F, hold for five minutes, and then homogenize. Others bring to 200 F and homogenize, while some mills hold at 200 F for 15 minutes before homogenizing.

Other groups of mills bring the mix to a boil and homogenize immediately; others wait for 10 minutes before homogenizing. One mill reported that it brings the mix to 180 F and homogenizes immediately.

Pressure at which these mills homogenize ranges from 800 to 2600 pounds per square inch; the majority operate at 1500 or 2000 psi.

Size box temperatures vary from 196 F to 207 F, but nearly two-thirds keep their size box at 204 F.

Storage of homogenized size for periods up to 48 hours is the practice at about 40% of the mills questioned. However, about one-third will not hold size for longer than 16 hours, and 17% of the mills do not store size at all.

One mill reported that a check showed their homogenized size to be still usable after 56 hours.

Maintenance is not a problem at any of the mills answering the questionnaire. Some mills clean and check their homogenizers monthly, while one mill reported no maintenance on its unit in three years.

Reduced starch consumption was cited most often as the source of savings due to homogenizing. Other savings come through reduced preparation time, fewer seconds due to hard size, lower steam consumption because of shorter cooking cycle, and elimination of week-end dumping of size.

The homogenizer should pay for itself in not more than 18 months, according to a great majority of the mills. Nearly one-quarter of the replies stated that the machine saves its cost in six months.

33 MILLS' EXPERIENCE WITH HOMOGENIZED SIZE*

	Increase %	Decrease %	No Change %
Amount of starch required	—	21.4	71.4
Drying speed	13.6	—	86.4
Shedding at the loom	—	36.1	63.9
Weaving efficiency	28.8	—	71.2
Uniformity of sizing	86.4	—	13.6
Amount of hard size	—	78.1	21.9
Penetration	56.8	—	43.2
Quality of warp yarn	50.0	—	50.0**
Uniform viscosity	64.0	—	36.0

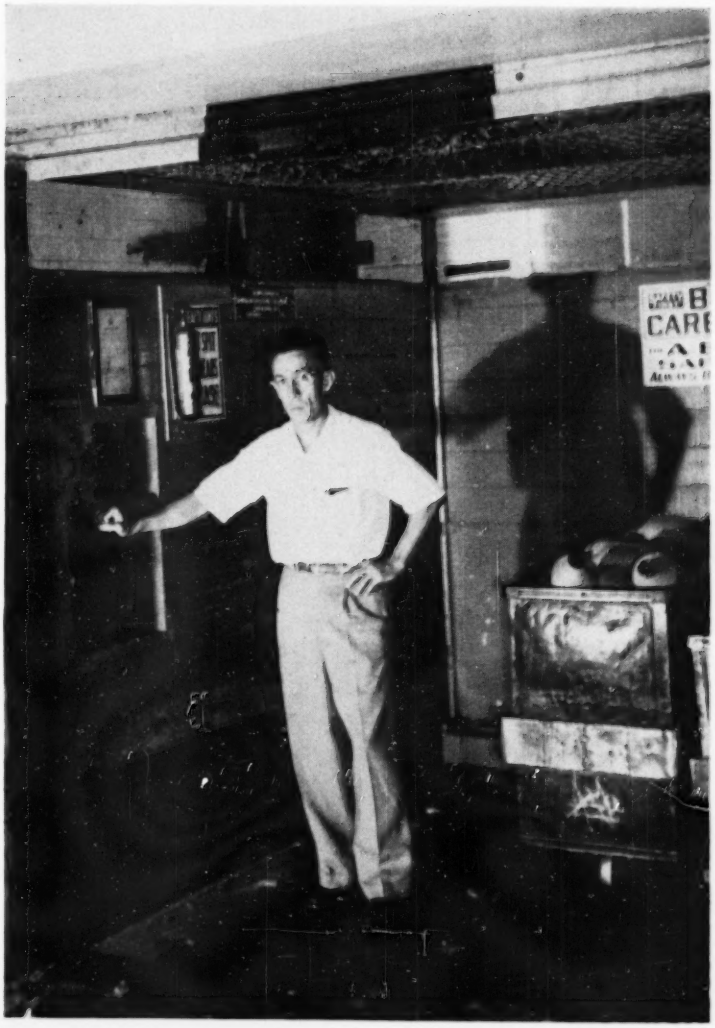
*Percentages are for the mills answering specific questions, since not all mills answered every question.

**16.6% reported "very little improvement."

Mr. Maintenance Man, don't overlook this—

pictorial check-list for

Elevator Maintenance



EXCLUSIVE

LIKE ANY other item of mill equipment, an elevator can be maintained in either of two ways. One is to let it run until it stops, and then hunt for an often hard-to-find failure, or perhaps find a motor burned out with no replacement for it. The other is to check and inspect, at regular intervals, the things that experience has shown are the cause of costly shutdowns, repairs, and accidents.

The pictorial check-list on the following pages is the procedure recommended by an elevator manufacturer*, with installations in numerous textile mills, for the planned preventive maintenance of mill elevators. Since neither people nor mechanical equipment can operate entirely without unforeseen faults and failures, breakdowns and accidents can never be completely eliminated; but this check-list shows how they can be kept at a near-zero level.

Please turn page →

* Monarch Elevator & Machine Co., Inc., Greensboro, N. C. Photos were made by I. D. Whitlow of that firm.

elevator maintenance

Before an Inspection—

OPEN SERVICE SWITCH before inspecting anything in the pent-house or machine room. BE SURE THE SWITCH IS OPEN. Examine lugs, fuses, and clips—look for overheating, loose fuses or clips.

Every Week—

✔ *Weekly*

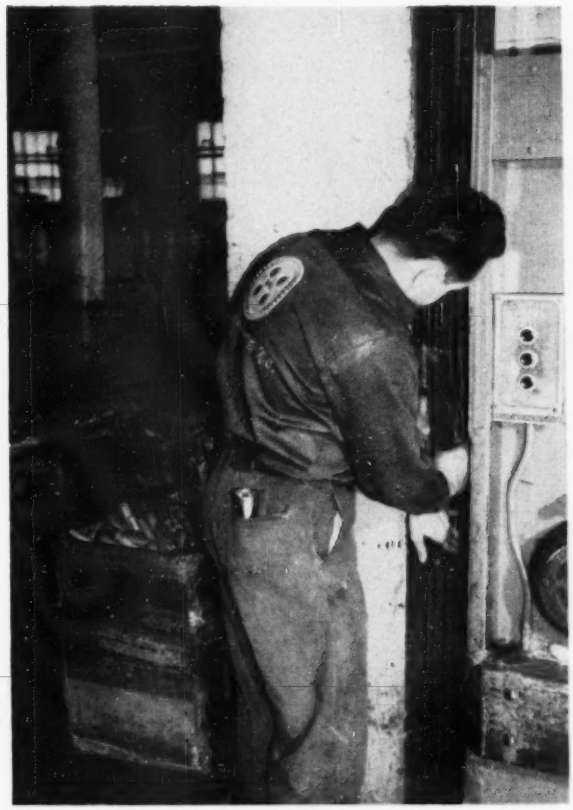
EXAMINE OVERSPEED GOVERNOR for proper lubrication. Check for excessively worn parts and freedom of movement, to be sure the governor will function if descending car overspeeds. Elevator should not operate with contact open.

✔ *Weekly*

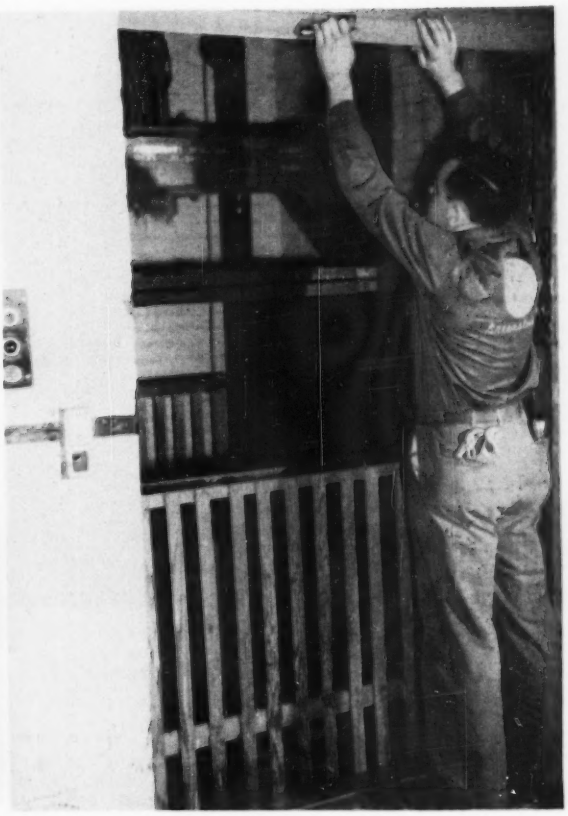
INSPECT CONTROLLER for badly worn or burned motor contacts, sticking relays, loose or broken wires or connections, and proper operation of reverse phase relay and overloads. Worn or burned contacts may fail to carry current and cause single phasing of the motor. Faulty overload relays are a cause of motor burn-outs, which are particularly hazardous in the wooden penthouse of a textile mill.

✔ *Weekly*

WHEN DOOR IS OPEN, car should not operate. It should not respond to call from any landing.

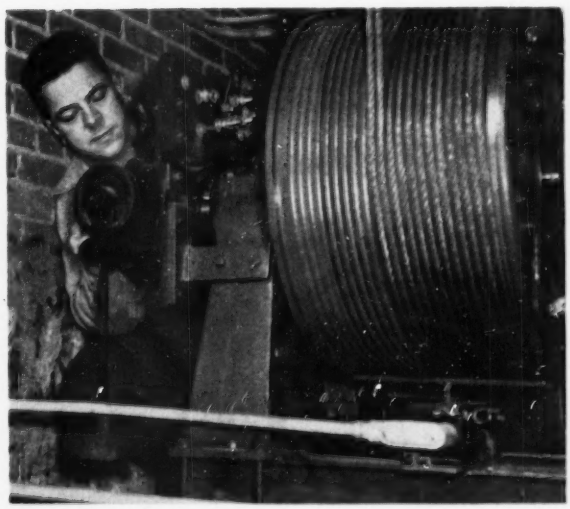


✔ *Weekly*
EXAMINE HOISTWAY DOOR INTERLOCKS for worn or loose parts. Lock parts should move freely.

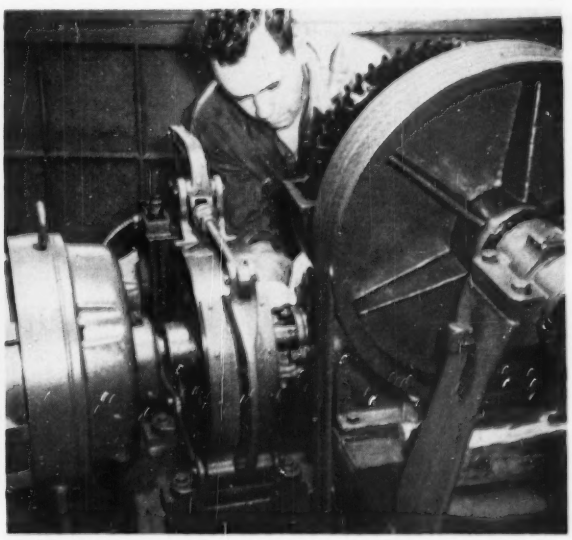


✔ *Weekly*
CHECK THAT HOISTWAY DOORS will not open when car is not at landing. Emergency release latch should be glass covered.

Every Month—



✔ *Monthly*
TEST MAIN LINE LIMIT SWITCHES to be sure that they open the main line contacts. With these contacts open it should be impossible to move the elevator up or down, either with the regular operating devices or by hand operation of the controller.

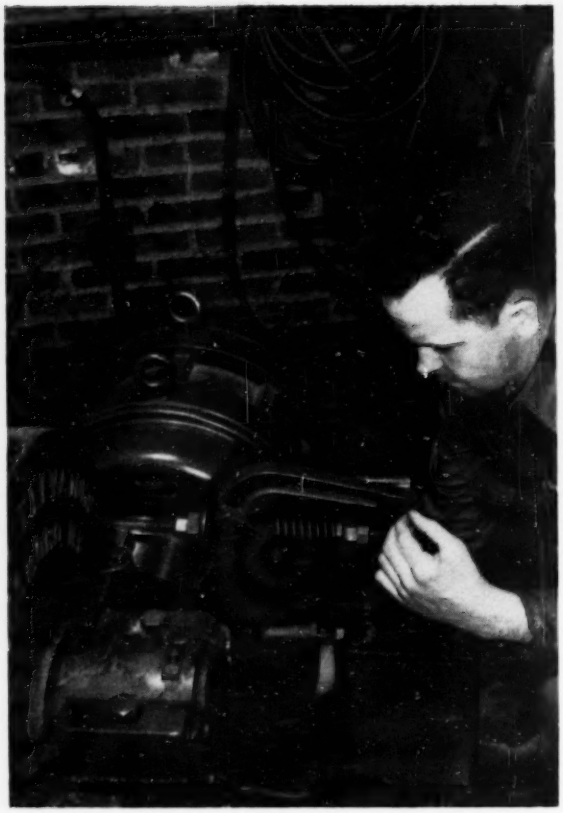


✔ *Monthly*
CHECK WORM SHAFT STUFFING BOX for excessive leakage.

elevator maintenance

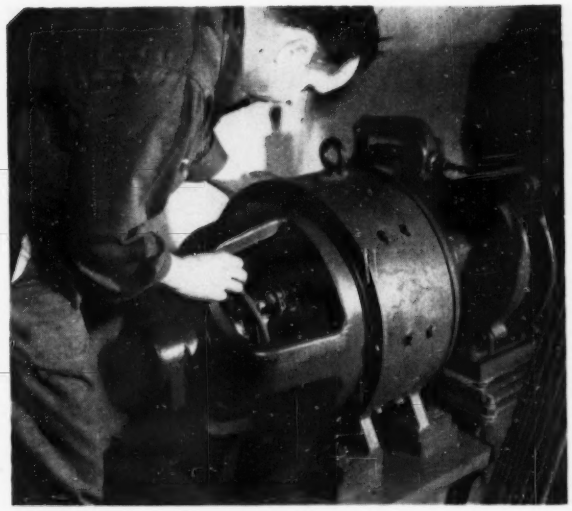
✔ *Monthly*
EXAMINE HOISTING CABLES for excessive wear and broken strands. Cables should be replaced according to the schedule on page 118.

✔ *Monthly*
ADJUST BRAKES—shoes should be kept as close to the wheel as possible. Check for missing cotter pins and excessively worn parts and brake lining.

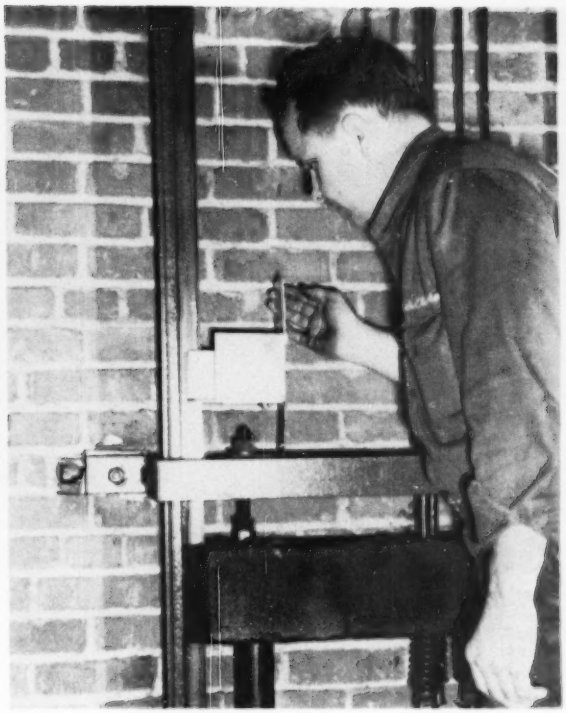


✔ *Monthly*
INSPECT GEAR CASE HOUSING for proper oil level.

✔ *Monthly*
CHECK OUTBOARD BEARING for proper lubrication by oil ring.



✔ *Monthly*
INSPECT D-C CURRENT GENERATOR AND EXCITER for worn brushes or commutators, broken leads, and proper brush pressure.

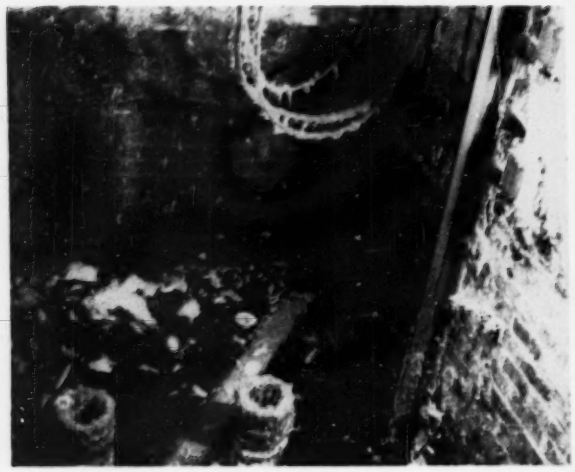


✔ *Monthly*
EXAMINE LUBRICATORS to see that they are filled and are feeding oil to the rails at proper rate of flow.

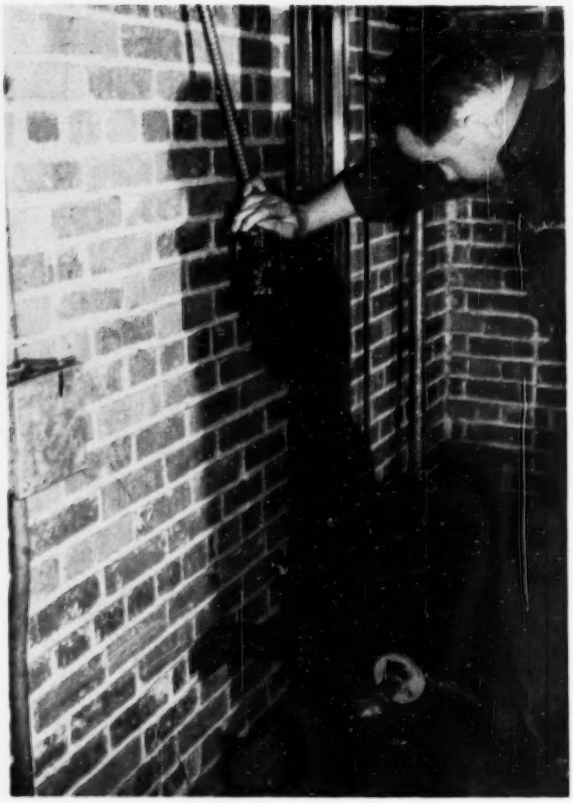
✔ *Monthly*
CHECK TRAILER CABLES for secure fastening, breaks in insulation; and for excessive moisture, which can cause short circuits. Cable which has been in use for a long time may be dangerous to touch if not waterproof.

✔ *Monthly*
EXAMINE GOVERNOR TENSION WEIGHT FRAME for proper lubrication. Check for worn parts, secure fastenings, and freedom of movement of weight assembly.

elevator maintenance



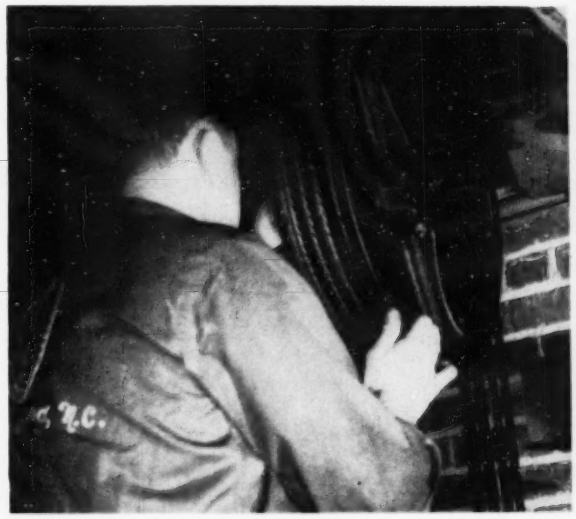
✔ *Monthly*
CLEAN PIT—water and trash in pit are ruinous to biparting hoistway doors, rails, bumper spring fastenings, and trailer cable.



✔ *Monthly*
CHECK HOISTWAY LIMIT SWITCHES for worn or loose parts, burned or worn contacts, freedom of movement of switch parts, and secure mounting. Be sure cam on car actually opens the contacts.

✔ *Monthly*
EXAMINE HOISTING CABLES for proper socketing and fastenings. Tension should be equal on all cables, and is adjusted by nuts on thimble rods under the cross head.

✔ *Monthly*
CHECK CAR GUIDE SHOES—both above and beneath car—for wear. Fastenings should be secure; shoes should be properly aligned, with their freedom of movement unimpaired.



✔ Monthly
INSPECT DEFLECTOR SHEAVE AND BEARINGS for proper lubrication. Look for wear or looseness.

✔ Monthly
EXAMINE GOVERNOR CABLE AND FASTENINGS for wear and broken strands.

Once a Year—

✔ Monthly
CHECK THAT SAFETY DEVICES—alarm bell, stop button, and safety switch—are in proper working order.

REMOVE GEAR CASE COVER and examine gear for wear. Check spider bolts for looseness. Drain and refill worm gear case.

elevator maintenance

When to Replace Elevator Hoist Ropes

Just when to replace elevator hoist ropes because of worn or broken wires, rust or corrosion, is a much discussed and not yet definitely settled question. One thing generally agreed upon, however, is that ropes on passenger elevators, where personal safety is paramount, should be discarded before it would be necessary to do so on freight elevators and dumbwaiters.

The following rules, which are recommendations of the State of North Carolina Department of Labor, are presented here as a guide:

PASSENGER ELEVATORS

Traction Type

1. When there are 14 or more broken wires in any one lay*.

Drum Type

1. When there are 10 or more broken wires in any one lay*.
2. When ropes are more than eight years old**.

FREIGHT ELEVATORS

Traction Type

1. When there are 16 or more broken wires in any one lay*.

Drum Type

1. When there are 12 or more broken wires in more than one lay*.
2. When ropes are more than 10 years old**.

PASSENGER AND FREIGHT ELEVATORS

1. When ropes are definitely rusted or corroded, pinched, kinked, unravelled or noticeably deteriorated for any other reasons they should be replaced.
2. When ropes have stretched or worn to a noticeably smaller than original diameter (i.e., $\frac{5}{8}$" rope to 9/16"), they should be replaced.
3. When one or more ropes on traction type elevators, because of improper equalization or uneven stretch, become broken or worn enough to require replacing on the basis of the foregoing rules, then *all* of the ropes should be replaced.
4. At least once for every year in service, all hoisting and counterweight ropes of winding drum type elevators should be resocketed.

* A lay is the distance which a strand travels to make a complete turn around the rope. (Usually 3½" to 4", depending on the size of the rope.) Most elevator ropes contain 6 or 8 strands of 19 wires each.

** A metal tag should be attached to all new ropes to show the size, make, and date of installation.

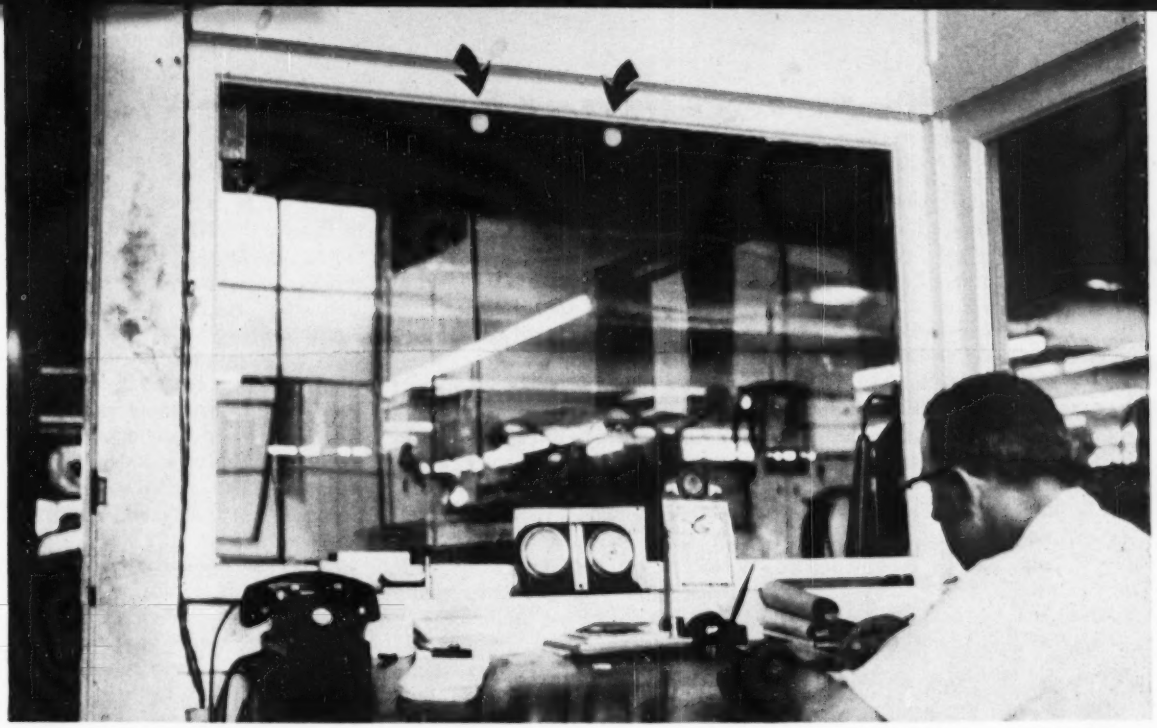
A Gruesome Sight—This Training Aid

Remember that First Aid manikin mentioned in the Strictly Textile Items portion of "Shorts and Remnants" for November? Ole S&R said it "dies if it fails to receive adequate attention, but 'lives' if the First Aider treats it properly." Well, here it is being used by Commander John V. Niiranen of the U. S. Navy Dental Corps to teach naval dental officers emergency casualty treatment.

Six first aid problems likely to be encountered in cases of emergency or mass casualties can be visually demonstrated on this life-size training aid made of plastic reinforced with glass fibers. Also, the accepted first aid care for each of the problems can be effectively illustrated.

The six problems are: A leg wound, an arm wound, an abdominal wound, a penetrating chest wound, choking caused by a foreign body in the throat, and bleeding from the mouth caused by a fracture of the jaw.

To make the manikin more lifelike, the "skin" over the body is of vinyl (resilient) plastic cured by dry heat in metal molds. A fluid of glycerin, water, and red vegetable dye is used to simulate blood. A centrifugal pump forces the fluid from a storage tank in the base of the manikin to the sites of the simulated wounds. Individual valve adjustments control the rate of flow to each. The fluid is collected in drains and is returned to the storage tank to be used over and over again. The clothing for the manikin is fitted with snap fasteners to facilitate removal for laundering.



TWO ANNUNCIATOR LIGHTS (designated by arrows at top center of photo) located in office of Lawrence Kemp, Dorr Woolen spinning overseer, keep him posted on the functioning of his department's centralized lubrication system. Each light indicates one pump unit.

Dorr Woolen Assures Lubrication

Staff Prepared

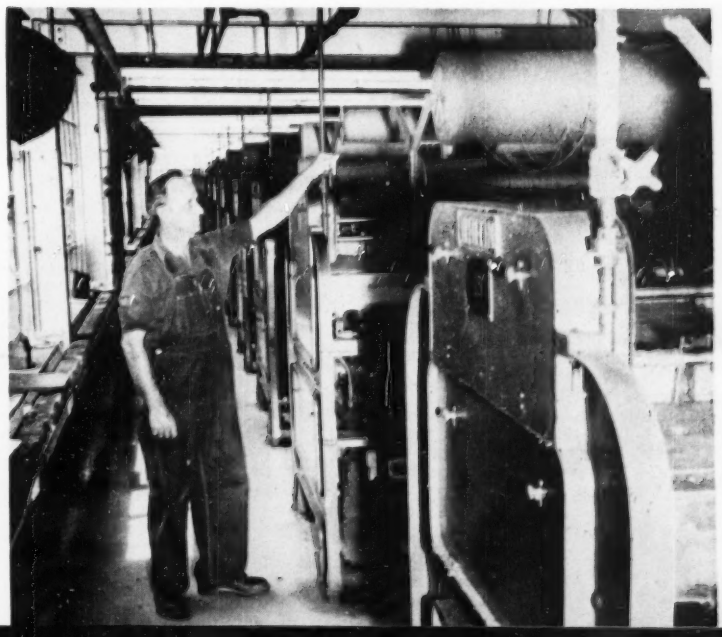
EXCLUSIVE

A UNIQUE pumping arrangement in the automatic lubrication system of Dorr Woolen Company's spinning department has com-

RINGS are lubricated as shown in this close-up photo.

Lincoln Engineering Co.

LUBRICANT SUPPLY LINE to each frame is equipped with cut-off valve, allowing individual frame control.



Visible and audible alarms warn woolen mill spinning room personnel of interrupted service from automatic frame lubrication system.

pletely cut out downtime of frames due to stoppages in the system itself.

When centralized lubrication was first installed at this Guild, New Hampshire, mill, the usual benefits ascribed to controlled oiling quickly materialized: longer traveler life, cleaner frames, fewer ends down, payroll savings, higher production, and greater oil economy. However, it became apparent that a single instance of mechanical or electrical failure in the system, though only a remote possibility, might make these gains meaningless.

Automatic lubrication is superior to any form of manual oiling but unless the system is operating properly its automatic feature ceases to be an asset and becomes instead a major liability. Because such equipment is automatic, it is usually unsupervised. Consequently, a malfunction or breakdown in the oil distribution system could go undetected for a period of time —just long enough for costly damages to be sustained by bearings and rings.

Another possibility is that even though the stoppage is caught in time, spinning operations would have to be halted until repairs are completed.

Here's how Dorr protected itself against such contingencies. The spinning department's 14 Whitin 120-spindle frames, aligned in one row, were divided into two equal groups for purposes of oil distribution. Each group of seven frames is served by one completely self-sufficient air-motor-operated drum pump controlled by time-clock.

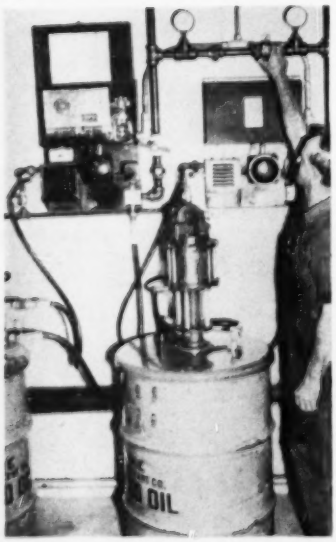
Each pump disperses lubricant directly from the refiner's original container, in this instance New York & New Jersey Lubricant Company's 400-pound drums of Grade K-XXXXX Extra Special. Timers are set to supply air to pumps at 15-minute intervals. This frequency of application has proved satisfactory for Dorr's 2 to 3⅞ run yarn by virtue of a 75 per cent savings in travelers.

This is the normal distribution set-up. However, arrangements were made for an alternate procedure which calls for the servicing of all 14 frames by one pump in case of a failure in the other.

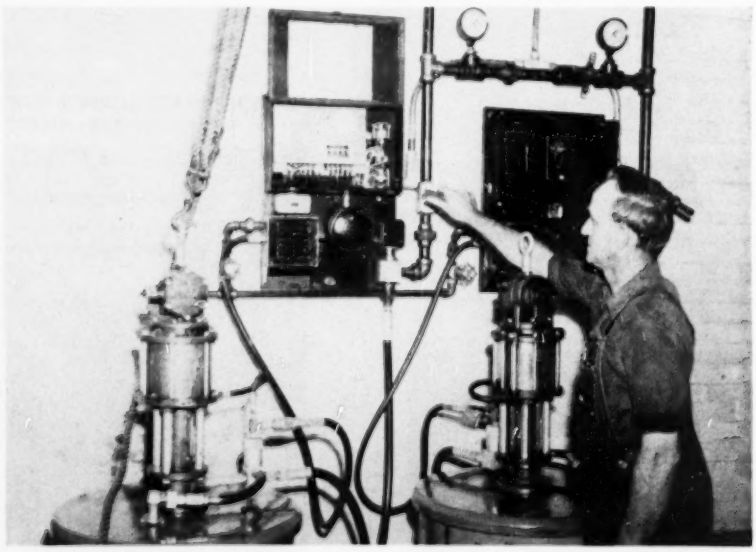
First indication of interrupted service is the sounding of a siren from the faulty pumping unit. Simultaneously, an annunciator light corresponding to the unit in trouble blinks out in the spinning overseer's office. These two signals alert fixers and second hands, and keep the overseer in touch with the situation. The signal alarm also warns when lubricant supply in the drum is low.

Power is immediately shut off in the malfunctioning unit. Unless repairs can be quickly made on the spot, its grease valve is closed and a by-pass valve connecting the functioning pump to the main supply line of the second group of spinning frames is opened. From this moment on, all 14 frames are lubricated from the same pump.

Dorr's card room has also been furnished with an air-motor-operated drum pump with timer control. A burling range and tenter dryer in the mill have been equipped with 60-pound capacity, automatically controlled, but manually timed Centro-Matic Lubriguns.



BLINKING ANNUNCIATOR LIGHT or sounding of siren at the control panel of pump unit, prompts quick inspection by secondhand Eino Anderson. If faulty unit is beyond immediate repair, he cuts power, closes grease valve leading to main supply line feeding 7 frames.



NEXT STEP is for Eino to open a by-pass valve between the two main supply lines so that grease will be pumped from the functioning pump to the group of frames whose service was interrupted as well as to the seven frames ordinarily serviced.

Textile Research Institute

Annual Meeting

► *When blending, use fiber alone or in combination with other fibers where the individual characteristics let that fiber contribute best to fabric performance.*

► *Major problems in blending are contamination from fly, uneven blends, and unremoved tint. Variations in moisture content make accurate weighings meaningless.*

► *Basic research checks on producing new synthetic fibers by blending polymers, followed by extrusion of mixture.*

Blending

at fiber and polymer levels

Staff Report

RESEARCH men from the textile and allied industries focused their attention on blending, both at the polymer and fiber levels, as the Textile Research Institute held its 24th Annual Meeting in New York, November 12 and 13.

Dr. John H. Dillon, T.R.I.'s director, described the Institute's research on the blending of fiber-forming polymers before extrusion; while speakers at the second day's sessions considered problems of more immediate concern to mills spinning fiber blends.

Polymer Blends. The possibility of producing new synthetic fibers by blending of suitable polymers, followed by extrusion of the mixture, is currently under study at T.R.I. Preliminary experiments have been with mixtures of polyacrylonitrile and cellulose acetate, polymers with widely divergent properties.

While stressing that this work must be classified as basic research, with practical results, if any, still several years in the future, Dr. Dillon envisioned acrylic fibers with controlled moisture sorption, dyeing, and static properties as an eventual result.

The idea of polymer blends is not original with T.R.I., but previous attempts have been with materials more nearly alike chemically than polyacrylonitrile and cellulose acetate.

In the experiments at T.R.I., conducted by H. J. White, Jr., and D. M. Cates, the two polymers were dissolved in a mutual solvent, such as dimethylformamide, and the mixture withdrawn from solution and coagulated as a film or as a fiber. The cellulose acetate fraction of the fiber may then be deacetylated (saponified) with caustic soda, if desired, to make it receptive to direct dyes.

It should be emphasized that the polymers do not combine chemically; the resultant fiber is a molecular mixture of the polymers. Experiments at T.R.I. have so far been confined to mixtures of polyacrylonitrile and cellulose acetate, although extension of the work to mixtures of cellulose acetate with other hydrophobic polymers is an obvious next step.

Experimental yarns and fabrics of polymer mixtures have been made by a fiber-producing member of the Institute, and study of the mechanical properties of the material is now under way.

Properties of Fiber Blends. Addressing the Friday morning session on "The Complementary Nature of Fibers from Natural and from Synthetic Polymers," J. B. Quig, E. I. du Pont de Nemours & Co., reminded his listeners that each fiber has its own unique properties. Each fiber should be used alone or in combination with other fibers where its individual characteristics give it the best chance to contribute to fabric performance.

Dr. Quig described a series of blending experiments in which the purely synthetic fibers — nylon, Dacron, or Orlon—were combined with the natural polymer fibers—

Table I. Summary of Fiber Contributions in Blends

FABRIC PROPERTY	Contributions of Synthetics to Older Fibers: "Dacron" to: W.	R.	A.	"Orlon" to: W.	R.	A.	Nylon to: W.	R.	A.	Contributions of Older Fibers to Synthetics: Wool to: D.	O.	N.	Rayon to: D.	O.	N.	Acetate to: D.	O.	N.
Strength	++	*	++	+	—	+	++	*	++				*	+	*			
Abrasion Resistance	++	++	++	—	+	+	++	++	++									
Crease Recovery (Dry)	—	++	+		+	+		+	—	—	+	+						
C. R. at High R. H.	+	++	++	—	+	+	—	+	+									
Stability to R. H. Change	++	++	++	++	++	++	—	+	+									
Stability in Dry Cleaning & Laundering	+	++	+	+	+	+	+	+	+									
Wicking	O, N and D increased wicking of W but added research needed to determine significance																	
Pilling Resistance	Added research needed to establish significance of laboratory pilling data for blends									+		+	+	—	+	+	--	+
Resistance to Hole Melting			—	—	—	—			—	+	—	+	++	—	++	—	—	—
Rate of Burning	+	+	—		—	—	+	+	+		+			—			--	—
Press Retention	++	++	++	++	++	++		+	+									
Static Resistance			—			—			—	+	+	+	+	+	+	—	—	—

* Tear Strength of R given ++ by D and N but Tensile given + only when R is minority component

+ = Significant contribution
++ = Major contribution
— = Minor change

W = Wool
R = Rayon
A = Acetate

D = "Dacron" polyester fiber
O = "Orlon" acrylic fiber
N = Nylon

rayon, acetate, cotton, or wool—and woven into carefully controlled fabric constructions. Various properties of these blends were studied for sets of fabrics varying in composition from 100% of a natural polymer fiber through three or four blends to 100% of a purely synthetic fiber.

The contribution of each fiber to a blend is shown in Table I. Table II gives the minimum percentages of nylon, Dacron, and Orlon required in blends with rayon, acetate, wool, and cotton to obtain certain desirable effects.

Table II. Indicated Minimum Percentages of Chemical Staples in Blended Woven Fabrics

	Resilience (Resistance to and Recovery from Wrinkling) %	Retention of Press %	Dimensional Stability to Changing Humidity %	Resistance to Abrasion %	Tensile Strength %
Nylon	— — —	Incomplete	40	15	15 Acetate Wool 60 Rayon Cotton
"Orlon"	50 Wool Acetate 80 Rayon	25 Rayon Acetate Wool Cotton	30 Rayon Wool Acetate	— — —	Adds Slightly to Acetate Wool
"Dacron"	50 Wool Acetate 75 Rayon* *Not Resin Tr.	25 Rayon Acetate Wool Cotton	30 Rayon Acetate Wool	30	20 Acetate Wool 60-70 Rayon Cotton

Problems in Processing Blends. Following Dr. Quig's paper, J. B. Goldberg, technical consultant, outlined the problems confronting mills which handle fiber blends. Mr. Goldberg listed contamination from fly, uneven blends, and unremoved tint as three of the major problems which plague the processor of all fiber blends.

Discussing uneven blending, Mr. Goldberg said that, while accurate weighing and intimate mixing are processing problems not impossible to control, variations in moisture content can make the most accurate weighings meaningless. His recommendation is that the mill take into consideration the moisture regain of each bale processed, or at least be sure that the lots of both types of fibers going into the blend are at moisture equilibrium before starting.

Other factors which may prevent an even blending are the differences between fibers in specific gravity and surface friction properties; and the different degrees of openness of different fibers, or even of the same fiber from different producers.

Referring to the difficulty sometimes encountered by mills in removing tints used for fiber identi-

fication, Mr. Goldberg noted that it is customary to test tints in the laboratory before using them in production. However, he warned, such conditions as steaming of yarn, prolonged contact with certain desizing agents, or the use of some synthetic detergents in normal boil-off procedure may result in setting of the tint or lessening of its fugitiveness.

Blends containing the newer synthetics, particularly those of the hydrophobic type, present the added problem of static electricity. The use of various devices to reduce or eliminate the charges generated have been most helpful, as have antistatic finishes applied at some stage of fiber manufacture or even in the mill.

While it is usually not practical to design a blend merely for ease of handling in the mill, blends of the hydrophobic fibers with viscose or wool have proved popular, so it is possible to include reasonable amounts of these higher moisture-retaining fibers when running acrylic, nylon or polyester fibers. For example, one fabric has been marketed with 90% Orlon, with 10% rayon added to reduce static charges in processing.

"Recognition of the important effect of fiber stress-strain characteristics is imperative for intelligent utilization of the newer synthetics," Mr. Goldberg continued. Where these properties differ appreciably, there is bound to be a reduction in yarn strength, excessive ends down, and general manufacturing difficulties. For example, small amounts of nylon blended with cotton increase abrasion resistance, but there is a definite loss in yarn strength. On the other hand, small amounts of nylon blended with wool add to yarn tenacity and improve processability.

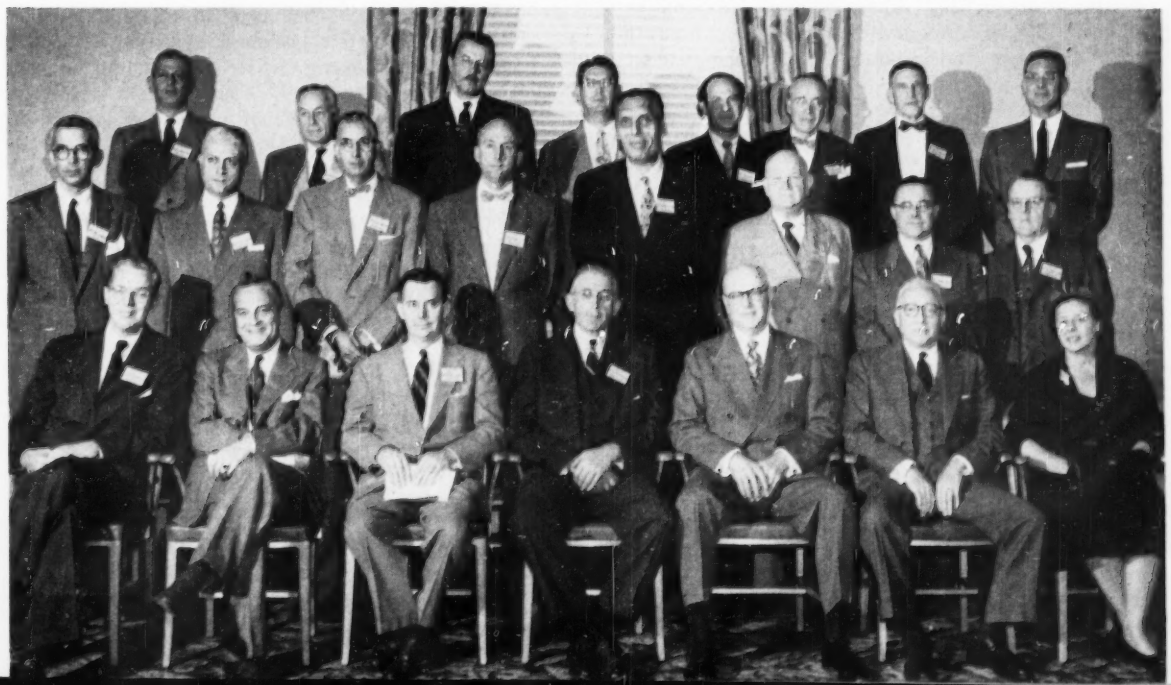
Choice of the correct denier of fibers in blends must not be overlooked. In a blend of fine denier nylon with coarse wool, fiber migration tends to cause the nylon to spin to the core of the yarn, so that any anticipated increase in abrasion resistance does not materialize.

Talk Over Production Goals with Your Employees

Research on employee motivation in the textile field has revealed that incentives are usually based on benefits received outside the plant and away from the job (housing, vacations, holidays, recreation) —none being directly associated with the job activity in the plant. Furthermore, employees are not usually consulted about productivity, quality, and job loads.

Upon treating employees as consultants and allowing them to help in establishing production goals, a surprisingly significant increase in production was noted in one large textile mill. It was found that the employees set the goals higher and achieve more production voluntarily when consulted than could be obtained by setting arbitrary standards based on studies.

T.R.I. OFFICERS AND BOARD OF TRUSTEES. Left to right, back row: **Andre Blumenthal,** Sidney Blumenthal & Co., Inc.; **W. H. Charch,** E. I. du Pont de Nemours & Co., Inc.; **R. T. Kropf,** Belding Heminway Co., Inc.; **J. H. Brant,** The Toni Co.; **Milton Harris,** Harris Research Laboratories; **E. T. Pickard,** The Textile Foundation; **C. S. Fowler,** Pepperell Mfg. Co.; **L. K. Fitzgerald,** Dan River Mills, Inc. Center Row: **P. C. Alford,** Textile Research Institute; **B. W. Hayward,** Philadelphia Textile Institute; **M. E. Heard,** West Point Mfg. Co.; **R. D. Wells,** Bates Mfg. Co.; **Jules Labarthe, Jr.,** Mellon Institute; **A. M. Tenney,** A. M. Tenney Associates, Inc.; **A. G. Ashcroft,** Alexander Smith, Inc.; **F. E. Nutter,** Goodall-Sanford, Inc. Front row: **D. H. Powers,** Warner-Hudnut, Inc.; **J. B. Goldberg,** technical consultant; **W. B. Sellars,** Burlington Mills Corp.; **P. S. Howe, Jr.,** American Thread Co.; **W. A. Karl,** Firestone Textiles; **Gaylord Davis,** American Enka Corp.; **Mrs. Elsie Murphy,** S. Stroock & Co., Inc. Not present for the photo were: new vice-president and chairman of the executive committee, **Sydney M. Cone, Jr.,** Cone Mills Corp.; and new board members **Harry L. Dalton** of American Viscose Corp. and **Russell C. Smith** of Cranston Print Works Co.



For the knitting mill dyer

Tips on dyeing

Orlon Knit Goods

Half-Hose. Conventional equipment can be used for dyeing hose made of Type 42 "Orlon." Dye either at boil or at 225 F in pressure equipment.

Boil off in open width in relaxed state for 5 min. Transfer wet fabric to dye beck and wash for 15 min. at 140 F with 4 oz/100 gal of "Duponol" D Paste. Drop half liquor and refill to cool fabric. Drop bath and give fabric short, cold rinse.

Dispersed dyes can be used for light to medium shades. With a carrier, such as phenol or orthophenylphenol, heavier shades can be obtained. For certain shades basic dyes can be used satisfactorily, although they must be applied at the boil. Acetate dyes are easy to apply and produce level dyeings.

These fabrics can also be dyed with acid colors by the copper method. However, about 1.0% of Emulphor ON or Triton X-100, based on weight of fabric, should be added to slow the rate of dyeing, and the temperature during dyeing should be raised slowly for better control.

Cool dyebath by half-liquor procedure used in pre-scour. Follow with a warm rinse in a fresh bath. Give fabric a 15-min. wash at 120 F, using 1.0% "Duponol" D Paste (on weight of fabric), depending on the depth of shade. Do not use alkalis in final scour. Give usual rinses.

After final rinse, treat hose with 0.25% "Avitex" NA at 140 F for 20 min. Lift and centrifuge lightly to remove most of water but not enough to fix wrinkles in them. Board on conventional equipment using external hot air for drying. Temperature of 200 F is recommended.

Do not dye hose containing rubber by cuprous ion method. Selected shades are obtainable on these by using dispersed (acetate) or basic dyes in conventional equipment.

Basic dyes have shown very good wet fastness properties on Orlon staple, and selected ones show fair light fastness.

Shrinkage of hose in wet finishing operations generally ranges from 5.0 to 10.0%. Compensation for this should be made in knitting of garment. In some cases it may be desirable to steam yarn on tubes before knitting to eliminate shrinkage.

Sweaters. Presteaming appears to improve the dimensional stability of Orlon sweaters during dyeing. Stack garments for steaming; forms are apparently unnecessary. Steam pressures of about 10 psi for 5 to 10 min. seem to be sufficient for stabilization. If carried out with reasonable uniformity, this operation has no detrimental effect on the dye affinity of the fiber.

Dyeing in the piece can be done on paddle-type equipment. Loosely pack sweaters in dye bag to minimize distortion during dyeing. Methods of dyeing and colors employed are the same as previously described for half-hose. Following dyeing, employ an overflow rinse to reduce bath temperature gradually and avoid setting wrinkles in garments.

Satisfactory hand can usually be attained by application of a softening agent in final rinse. If added loft and softness are desired, an alternate method can be employed involving use of a laundry wash wheel. Typical procedure for this would be treatment of unbagged garments in bath of 1.0 to 2.0% "Avitex" NA at 120 F for 15 to 30 min. Experiment with this on small scale until desired degree of softness and loft is obtained.

A 2-min. centrifuging cycle is recommended. Use tumble type drying equipment at low to medium temperatures for removing final traces of moisture.

Avoid high temperatures and pressures when pressing these sweaters. Most wrinkles are removed by steaming the sweaters on the buck of a press and patting the garment with a tailor's block or an insulated mitt.

Jersey Fabrics. Acetate colors are customarily used for dyeing jersey fabric made from 100% Orlon. For deeper shades supplement with acid colors and possibly basics.

After dyeing and rinsing, centrifuge fabric lightly to remove excess water or vacuum extract and dry on an upright pole-type dryer. Final washing is done on an overfeed-type machine such as that manufactured by Tubular Textile Machinery Co. In some cases it may be necessary, but not recommended, that the fabric be lightly semi-decated to remove wrinkles that have become set during the drying operation. In such cases, it is suggested that a minimum steaming time be used in order to avoid producing a "shine" on the fabric as well as imparting thinness of hand.

From "The Technical Bulletin" published by E. I. du Pont de Nemours & Co., Inc., Organic Chemicals Dept., Dyes and Chemicals Div.

SPEAKERS and session chairmen at the Conference, left to right, seated: W. M. Emmons, Westinghouse Electric Corp., Atlanta, Ga.; S. O. Cowan, Factory Insurance Association, Charlotte, N. C.; J. D. McConnell, Cone Mills Corp., Greensboro, N. C.; H. C. Swannell, J. E. Sirrine Co., Greenville, S. C.; H. B. Greear, General Electric Co., Atlanta, Ga.; M. R. Brice, Cutler-Hammer, Inc., Milwaukee, Wis. **Standing,** left to right: C. C. Gould, Square D Co., Milwaukee, Wis.; G. A. Bumann, Century Electric Co., St. Louis, Mo.; Dean J. H. Lampe, School of Engineering, N. C. State College, Raleigh, N. C.; J. C. Lebens, Bussmann Mfg. Co., St. Louis, Mo.; W. H. Formhals, Westinghouse Electric Corp., Buffalo, N. Y.; V. F. Sepavich, Crompton & Knowles Loom Works, Worcester, Mass.

Ground power supply systems?

Pros and cons discussed at Raleigh meet of A.I.E.E.

Staff Report

THE LARGEST group yet to attend a meeting of its type gathered in Raleigh, N. C., October 29 and 30, for a Conference on Electrical Equipment for the Textile Industry. The conference was jointly sponsored by the Textile Sub-Committee and North Carolina Section of the American Institute of Electrical Engineers, and the Schools of Engineering and Textiles of North Carolina State College.

The program featured eight papers on subjects of interest to electrical engineers and maintenance men in textile mills, and included a panel discussion of "Electrical Problems and Remedies."

Motor Lubrication. The principal topic discussed by the panel and the audience was the lubrication of small motors. A representative of a large manufacturer of synthetic fibers stressed that, in his experience, a regular schedule for oiling motors is essential, despite the fact that an experienced oiler is more valuable than any schedule. The schedule must be flexible, and revised as experience dictates.

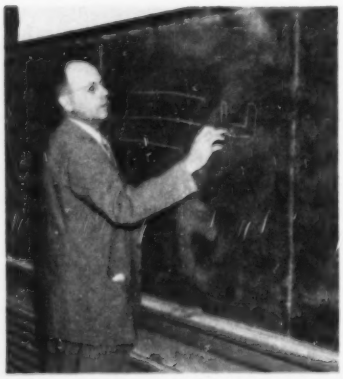
At this plant, a regular oiling crew has done all oiling of motors during the past four years, except for those in the power house, which are oiled by electricians.

One panel member was of the opinion that oiling schedules for motors are given too much emphasis. Bearing failures traceable to lubrication faults are rare; most occur through other causes. There are more failures from over-greasing, rather than under-greasing. He cited a recent case of a spinning frame motor which ran for about 15 years with no lubrication at all.

The same panel member commented on the growing use of permanently sealed bearings in small motors, both here and abroad. One European company (Siemens-Schuckert) permanently

DISCUSSION PANEL was composed of, left to right, W. W. Hanks, Southern Electric Service Co., Charlotte, N. C.; M. R. Brice, Cutler-Hammer Inc., Milwaukee, Wis.; J. C. Lebens, Bussmann Mfg. Co., St. Louis, Mo.; C. C. Gould, Square D Co., Milwaukee, Wis.; G. A. Bumann, Century Electric Co., St. Louis, Mo.; W. H. Formhals, Westinghouse Electric Corp., Buffalo, N. Y. J. D. McConnell (standing, rear) was moderator.

BUILD UP OF OVER-VOLTAGES is demonstrated during paper given by H. B. Greear, General Electric Co., Atlanta, Ga.



DAN McCONNELL, Cone Mills Corp., Greensboro, N. C., illustrates a point during the discussion.

packs all motors up to 50 hp; no provision is made for oiling.

Control Enclosures. The development and standardization of industrial control equipment enclosures suitable for textile mills was reported on by Swaffield O. Cowan, Factory Insurance Association. The problem has been under study by a joint committee of the A.I.E.E. and the National Electrical Manufacturers Association since early in 1952.

The committee recommends that control enclosures for textile mills meet the following requirements:

(1) Prevent entry of lint and escape of sparks.

(2) Have no unused openings.

(3) Have no conduit knockouts or conduit openings. Suggested conduit entry locations to be suitably indicated on the enclosure.

(4) Provide sufficient room on each side of the mechanism to accommodate wires sized for maximum current rating.

(5) Cover latching device to be positive and reliable.

Enclosures meeting these requirements are already available, designed to operate in an atmosphere of explosive dust; but the flash fire hazards in a textile mill, although serious, do not justify their weight, bulk, and prohibitive cost.

The textile industry is rapidly abandoning the use of the N.E.M.A. Type I general purpose enclosure, which is not dust-proof, in favor of a modification with a cover gasket. While this enclosure is not entirely satisfactory, it is a big forward step.

Although there is no control enclosure available for textile mills which meets the committee's specifications, at a reasonable cost, continuing work is expected to have early results.

Grounded power systems

By H. B. Greear
General Electric Co.

Abstract

THE practice of grounding the neutral of transmission and distribution systems has been followed for years by the electric utility companies, and during the past 10 years has been adopted by many industrial plants.

Grounding the neutral of distribution circuits at 600 volts or less was not initiated on any scale until it was introduced in new plants built during World War II. Since few of these were textile mills, grounded-neutral operation on low-voltage systems has been mainly in other types of plants.

One of the principal reasons for using the grounded-neutral system is to reduce the number of failures from over-voltages in motors and other equipment. These over-voltages result from lightning, intermittent grounds on ungrounded-neutral systems, or from resonance effects.

All ungrounded-neutral power distribution systems, such as those in a textile mill, may be thought of as capacitors; hence, when a ground occurs, repetitive restrikes of the arc across the point of ground permit voltages of five or six times normal to build up. Although these voltages may not be more than the *one minute* high potential tests on new equipment, moisture and other factors reduce

Effect of Atmospheric Conditions on Testing Certain Cotton Fiber Properties

Results of a study recently concluded in the Research and Testing Division, Cotton Branch of the Production and Marketing Administration, U. S. Department of Agriculture, indicate that an *increase in relative humidity* has the following effects on cotton fiber testing when the temperature is held constant at 70 F:

(1) *Increase of the Micronaire value* in fiber fineness testing. Coarser cottons are affected more than finer for same change in rh. Increase averaged 0.05 microgram per inch for each 10% increase in rh.

(2) An *increase in strength* as measured by the Pressley instrument, with the stronger cottons showing the greatest increase.

(3) *Increase of Fibrograph length and length uniformity* results, with the longer cottons tending to be affected more than the shorter for the same increase in rh.

Results also indicated that an *increase in temperature* has the following effects on cotton fiber testing when relative humidity is held constant at 65%:

(1) *Decrease of Micronaire readings* in range of 60 to 70 F and in a slight increase in the range from 70 to 90 F. Greatest effect was noted between 60 and 65 F.

(2) *Increase in strength of cotton fibers*, with stronger cottons showing the greater effect. Greatest change occurred between 70 and 75 F.

(3) *Slight increase in the Fibrograph results*, with greatest change noted between 70 and 75 F.

the actual amount of over-voltage the equipment will withstand after it is in service for some time.

With a grounded-neutral system, there is no tendency to restrike the arc at the point of ground, since the power current does not lead its voltage in the same manner as the capacitor current. Therefore, over-voltages are not obtained, or are so small that they are not objectionable.

Where purchased power is involved, the majority of the main power transformers now supplying textile mills are of considerable size and are delta-connected on the 600-volt side. In these cases the cost of securing the grounded-neutral system is the price of a grounding transformer, plus the cost of equipping feeder breakers with a third trip coil, if they do not have three coils already.

On new unit substations the transformers can be secured with the secondary wye connected at little or no extra cost; therefore for new installations the extra cost of securing the grounded-neutral system is negligible.

The advantages of the grounded-neutral system are:

(1) Fewer failures of motors and other equipment.

(2) Less time required to find grounds.

(3) Less interruption to production.

(4) Less danger to personnel.

Ungrounded power systems

By H. C. Swannell
J. E. Sirrine Co.

Abstract

THE ungrounded-neutral system for distribution of power in textile mills, the majority of which use a distribution system of 600 volts or less, has been universally used for years.

Although the possibility of ground faults has increased greatly, it appears that actually ground faults do not occur too frequently. This is confirmed by a survey of three large mill groups, where 25,000 or more motors, as many control devices, and miles of low-voltage circuits are in use. In only one case are ground faults as frequent as once a day; the other two mill groups report one or two a week.

The most important single factor contributing to ground faults in textile mills is building and machine vibration. For these mills, grounding the neutral of the power distribution system would not alter the conditions that produce ground faults.

When a ground fault occurs with a grounded-neutral system, production must be interrupted until repairs are made. With an ungrounded system production can be continued while the fault is found and repaired during a normal shut down period.

One of the principal reasons cited for grounding the neutral of low-voltage systems is to reduce transient over-voltages induced by intermittent ground faults. However, on 600-volt systems the transient over-voltage due to ground faults does not exceed the motor test voltage, and for 480 and 250-volt systems is less than the test voltage.

The only practical method of providing a grounded-neutral system for a majority of textile mills is to use a grounding transformer, which, apart from increased cost, has limitations which may prevent any substantial reduction of ground faults.

In summary, textile mill experience over many years of operation with ungrounded-neutral systems has been generally satisfactory. At best, any gain achieved through changing to a grounded-neutral system would be limited, and would usually involve considerable expense.

Does Point Buying Solve Blending Problem? No!

By J. D. Barrentine and J. A. Ladebauche
Jones, Gardner & Beal, Inc.

EXCLUSIVE

INCREASED emphasis has been placed on the characteristic of fineness by the cotton industry during recent years. This is especially true since the advent of the Micronaire, which enables these tests to be made more rapidly, accurately, and considerably more economically.

Paramount to this development has been the discovery that by utilizing individual bale fineness, neps can be successfully controlled; processing efficiency can be maintained on an even keel; and many dyeing difficulties can be eliminated.

To illustrate the need for some measure of control over this important characteristic, Table I has been prepared to show the wide range in this property in one quality of Central Belt growth. This table represents tests made on 30,000 individual bales of Middling, 1 1/16" - 1 3/32" bought from October 1 to December 1, 1952. The values indicate the percentages of these 30,000 bales falling under each Micronaire reading. From this table it will be noted that fineness values range from 3.3 to 5.4 micro-units. This wide range shows that some control of fineness in the mix is necessary for best processing efficiency.

Also it will be noted that though this wide variation is found, 84.7 per cent of the 30,000 bales tested between 4.0 and 4.9 micro-units; 11 per cent of the bales were found below 4.0; and 4.3 per cent above 5.0 micro-units.

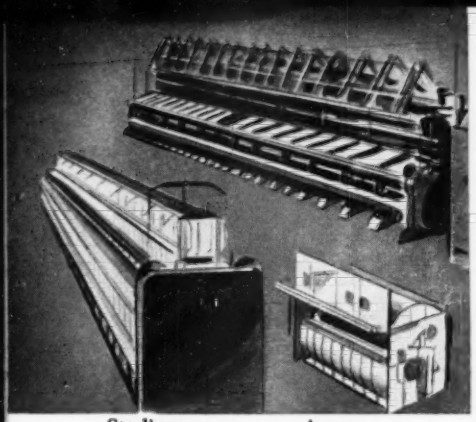
Uniform Micronaire Reading by Point Buying Theory Disproved. Although realizing the benefits to be derived by individual bale fineness testing, a good many people have contended that cotton of a fairly uniform Micronaire reading could be obtained by selective buying in particular points, thus eliminating the practice of blending to an average. Table No. 2, showing average fineness in different locations, might lead one to think point buying would solve the problem; however, this theory is emphatically disproved if you consider Charts A, B, C, and D, which show wide ranges in one location; for mills buying and mixing different grades the extremes and distribution chart would probably be even more irregular. These variations emphasize to us the need for the positive control of fineness.

Recommendations. To realize full benefits from this research development a mill must:

(a) Carefully determine by spinning tests what fineness average is the most desirable for its particular use. The fact must be borne in mind that fine cotton usually produces stronger yarn but tends to nep to a greater degree; and coarse cotton will produce yarn of excellent appearance but at the expense of strength. Obviously, a

TABLE 1.
Breakdown of 30,000 Micronaire Tests Made on Middling, Central Belt Cotton

Micro-Units	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	TOTALS
Below 4.0	.1	.1	1.5	1.5	1.9	3.1	2.8																11.0%
4.0 - 4.9								9.5	8.4	9.3	9.9	9.2	10.9	9.0	8.3	5.6	4.0						84.7
5.0 and above																		2.1	1.3	.5	.2	.2	4.3
																							100.0%



Studies Assays

VARIATIONS in cotton will not necessarily follow identical patterns each year. A close study of weather conditions prevailing during the growing season and an early ginnings testing program can throw light on this subject. Every bale should be tested by Micronaire and the mix made up to have the same average day after day.

happy medium is usually selected, dependent upon requirements of end products.

(b) Institute a program whereby these data can either be obtained from the cotton seller or from the mill laboratory. It is far more convenient and economical to have the seller include the data on his weight sheet since this obviates the necessity for additional handling at the mill.

(c) Make arrangements to store the cotton on basis of Micronaire readings where it is easily accessible for use in the mixes.

Preparatory to making the decision as to what micro-unit average to shoot for, consideration must be given to the fact that this decision will, of necessity, have to be attuned not only to the end product involved, but also to the general run of Micronaire readings in the area of growth in which purchases are to be made.

Some mills have set maximum-minimum Micronaire limits which they will accept on the pretext that the extremes are the trouble makers in processing and yarn appearance, and thereby eliminating extra fine and extremely coarse bales. However, it is most important to place these limits as widely apart as possible since the raw stock price will increase with increased selectivity.

In addition to Charts A, B, C, and D, other tests on well over 100,000 bales made on the various qualities and from all the leading country markets, have conclusively shown similar variations in fiber fineness, point by point.

Not Same Pattern for Location Every Year. To this must be added the fact that variation will not necessarily follow identical patterns each year. It is well understood that seasonal growing conditions are the greatest factor affecting fiber diameter with the exception of inherent varietal characteristics. Therefore, it is obvious that some means of getting an early picture of an ensuing crop must be set up to provide a basis in determining the program to be followed in buying and blending for that particular season.

A close study of weather conditions prevailing during the growing season and an early ginnings testing program can throw much light on this subject.

Our company has found it advantageous to conduct this early ginnings testing program for a number of years. Experience and correlation of these findings enable us to get a pretty good idea of what to expect from the standpoint of fineness and the other properties of the crop when it commences to move in volume. This gives a general picture which is of much help in buying. For best mixing practices we believe every bale should be tested by Micronaire and the mix made up to have the same average day after day.

TABLE 2.

Showing average fineness values found in some of the primary market areas without regard to variation within each respective locality

Micro-Units	Locality
3.9	Lilbourn
4.0	Ripley
4.1	Gideon, Dyersburg
4.2	Tiptonville, Port Gibson Caruthersville, Portageville
4.3	Monroe, Hayti, New Albany, Hulbert
4.4	Yazoo City, Helena, Kennett, Marks, Malden
4.5	Oceola, Tunica, Rosedale, Blytheville, Wilson
4.6	Dell
4.7	Clarksdale
4.8	Hughes

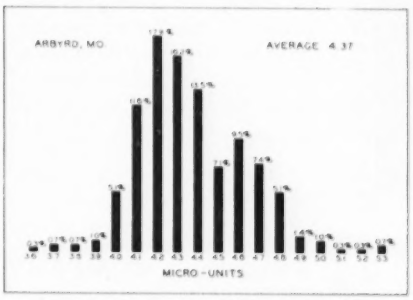


CHART A. Fineness distribution of Arbyrd, Mo., crop. Note swift decline from 4.2 micro-units.

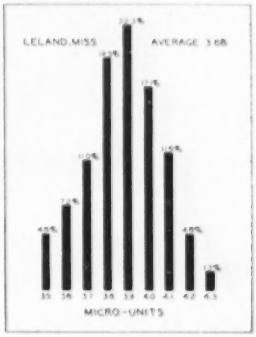


CHART B. fineness distribution of Leland, Miss., crop. This was found to be generally fine but with considerable variation

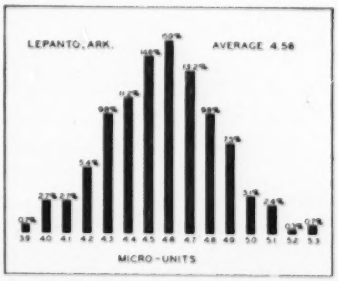


CHART C. Distribution of fineness values found in Lepanto, Arkansas, crop. Note wide range between extremities.

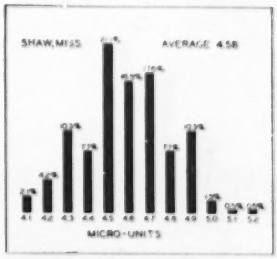
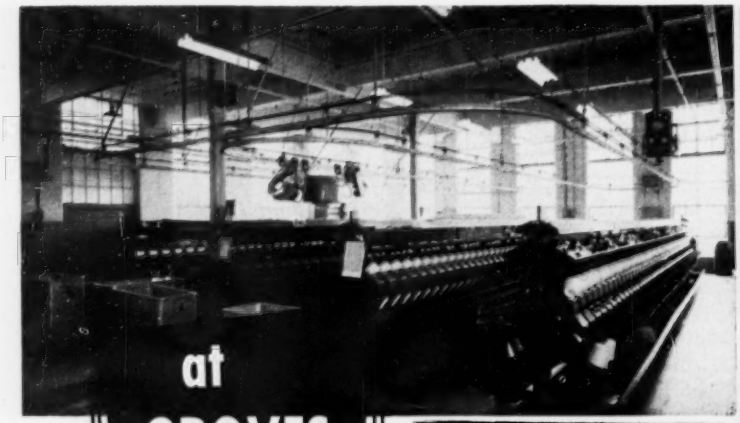
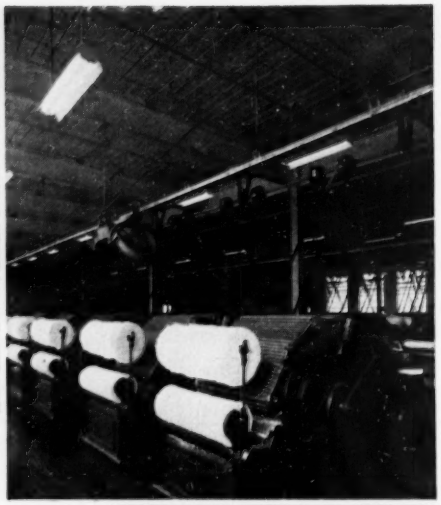


CHART D. Distribution pattern found in tests made on cotton from Shaw, Miss.



Cleaning over winders.



Ceiling cleaning in card room.

at GROVES THREAD it's quality control bale to sale...

A clean mill produces quality thread. That's why Groves Thread Company, Gastonia, N. C., uses American MonoRail Automatic Cleaning throughout entire operation.

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Cleaning over spinning.

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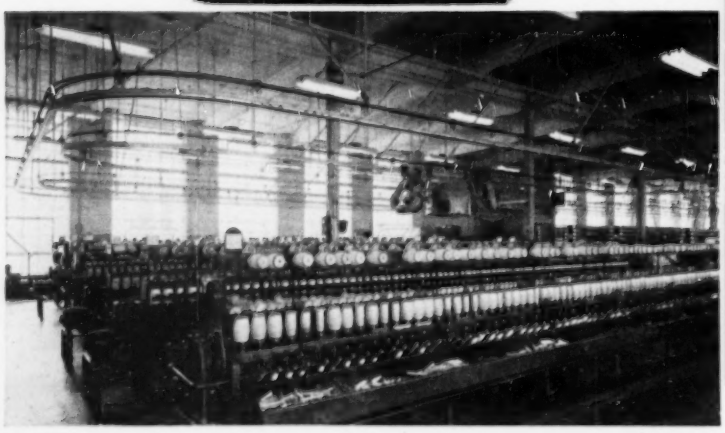
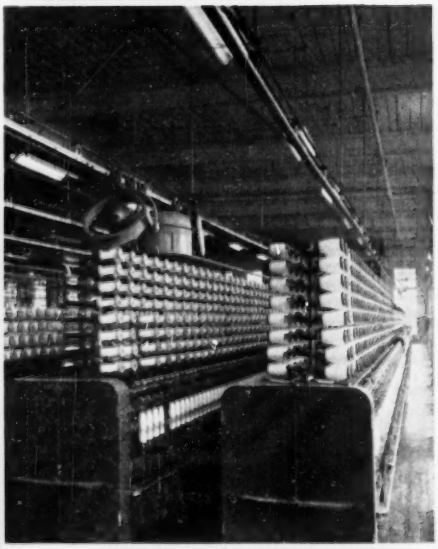
Cleaning over spoolers.





Cleaning over twisters.

Georgia mill men hold

Weaving Discussion

- *Controlling waste*
- *Loom supply cost*
- *Issuing repaired parts*
- *Quality control*
- *Weaving fabrics having ends with different take-up from single beam*
- *Ways to prevent slack and tight tape selvages*
- *Preventing "button holes"*
- *Quill replacement*
- *How to run traverse on filling spinning*
- *Doffing cloth from looms*
- *Checking cloth weights*
- *Weaving filling twills*
- *Loom cleaning*
- *Weaving filament rayon*
- *Fiber-sided shuttles*
- *Atmospheric conditions for weaving drills, twills, sateens*
- *Stripping quills*
- *Spring jacks on 60" looms making heavy fabrics*

*Staff Report**

Controlling Warp Waste in Weaving. Some of the methods by which warp waste is held to a minimum in Georgia mills are:

(1) Weigh, classify, and record waste by shifts, and make daily report to overseer. Summary report prepared at end of each week is studied by overseer of weaving and waste house foreman who compare actual poundage of waste with established standard.

(2) Secondhands make spot check throughout shift of waste made from warps put up and run out.

(3) Weavers are required to weave warps down to three rounds on the beam barrel. Splintered beam barrels are replaced or covered with a pasteboard tube so that last round can be run off.

(4) Slasher tender puts lease combs in warp at slasher before beam is doffed.

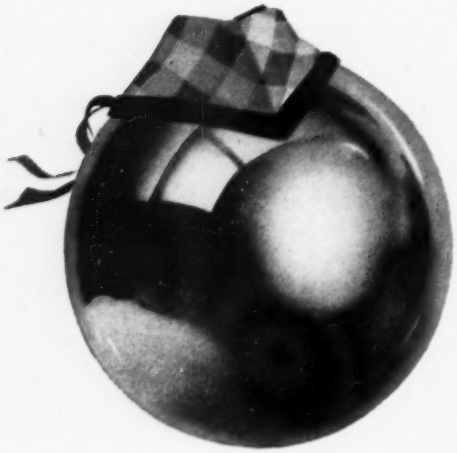
(5) Tape warp at slasher with three strips of gummed tape — one strip on top of yarn sheet about 40" from end of beam and two strips, one on top and one underneath, where beam is to be doffed. These last two strips are split with scissors when the beam is doffed, leaving one-half on the full warp and one-half to keep the yarn straight when the new warp is started up. The yarn is then started on the new beam with a stick fitting in the beam groove. This procedure keeps outside end of warp in good lease for tying-in (the portable tying-in machine operator ties between strips of tape) and holds yarn on inside end of warp to give very little waste on the loom run-out.

Controlling Filling Bunch Waste. So that filling bunch waste will not be excessive, loom fixers in one mill check their jobs twice a shift for big bunches from filling changes and secondhands make one check during the shift.

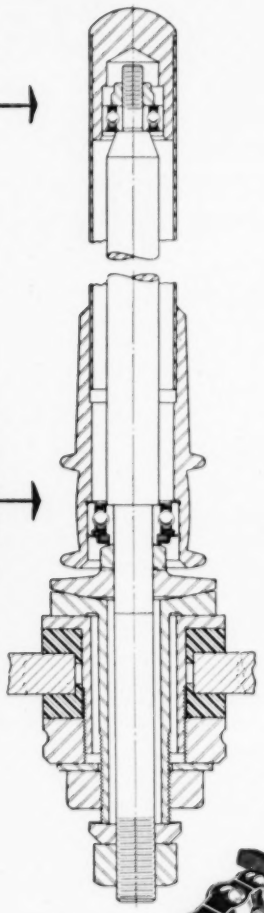
At a plant where 8" quills are utilized on looms with reed widths of 44" to 46", nine yards of filling yarn on the quill are considered a standard amount of waste.

Filling waste is held to a minimum in another mill by keeping feelers set properly, keeping bunches no larger than necessary,

*Report of that portion of the fall meeting of the Textile Operating Executives of Georgia which dealt with slashing appeared in the December, 1953, issue.



Money Savers in the Mills



NOTHING ROLLS LIKE A BALL

Top performance at top speed . . . textile equipment must be built to last! And New Department **ball** bearings have proved themselves in this field . . . with their low friction operation at high speeds . . . their smoother running that gives more even yarn twist . . . their saving of power. Highly important is the N-D-Seal bearing. This outstanding **ball** bearing requires no service of *any* kind for years at a stretch! Truly a Money Saver in the Mills.

NEW DEPARTURE
BALL BEARINGS

NEW DEPARTURE • DIVISION OF GENERAL MOTORS • BRISTOL, CONNECTICUT
Plants also in Meriden, Connecticut, and Sandusky, Ohio

and battery fillers re-plugging any pieces.

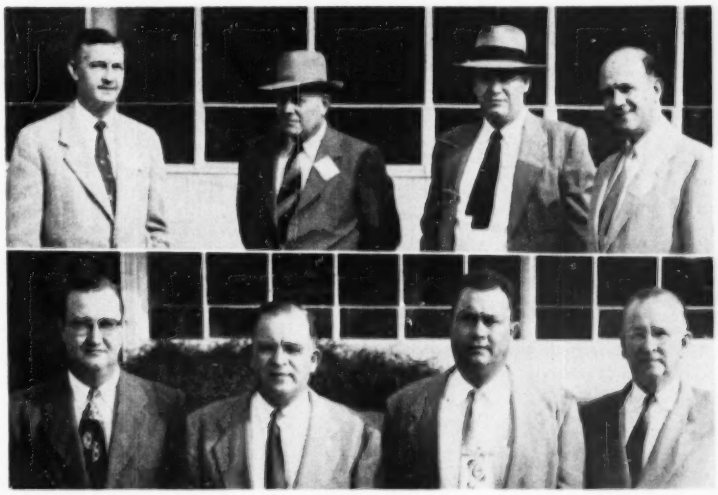
2.75% filling bunch waste is considered a normal percentage in a plant where this waste is collected from each shift, taken to the waste house, weighed, weight recorded and compared with the standard. Here a check is made of each quill can periodically to observe those looms that are running long bunches or knocking out pieces. These looms are reported to the department head, and action is taken to correct the condition. A weave room secondhand checks feeler motion settings and sets them as closely as possible as frequently as he feels is necessary or whenever the amount of waste goes above standard.

A standard bunch and a special bunch are made, according to one report. The special bunch has more filling and is used only on extra wide looms. Winders and spinning frames are checked daily for faulty bunches. Yarn varies from 10s to 20s plied and single; reed widths from 16.50" to 67.33"; quills, 8" and 8¾". 1.50% filling bunch waste, based on filling spinning and winder production, is considered normal.

Re-Issue of Parts Repaired. 18 mills responded to the question "What is the most economical method of handling the re-issue of broken parts from the weave room that can be welded or repaired?" Management in 15 of these mills deems it advisable to return the repaired parts to stock in the supply room for re-issue.

Parts are kept in the weave room in one of the other three plants instead of being put back into stock. Very few welded parts are used in the second. As for the third: "Most of our repaired and welded parts are placed back on the loom from which they were taken. However, we do have some welded and bushed parts that are placed in marked bins in a stock room that is open to all loom fixers. They may obtain any of these parts without a requisition, and these parts are not charged to the fixer."

Supply room clerks are instructed to issue repaired parts in preference to new in the majority of the 15 mills. Only repair costs are charged to the weaving department in two instances. Another mill credits the weave room with each restored part and re-issues in same manner as new part.



DELEGATIONS FROM CALLAWAY AND MARY LEILA. Top photo, left to right: P. R. Clemons and J. R. Poague of Callaway Mills Co.'s Unity Plant; Tom Hunt of Hunt Engineering; and Philip Cleaveland of Callaway's Unity. Bottom photo: C. A. Wilson, C. R. Christopher, B. E. Gober, and D. C. Anderson, all of Mary Leila Cotton Mills, Greensboro, Ga.

Quality Control. Here are some methods utilized to control off-quality production in the weave room:

(1) Cloth inspectors continually examine fabric as it is being produced in the weave room. Each inspector is assigned approximately 300 looms. Also when an off-quality roll of cloth is found in the cloth room, a notice bearing the loom number and nature of the defect is immediately sent to the weave room. In addition a summary report of all seconds made

Loom Supply Cost

Compare yours with experience in these Georgia mills

Mill	Cost Cents/loom hour (except when stated)	Loom Model	Speed Picks/Min.	Fabric Weight
A	3.93	Modified D Stafford C&K X, XP	108-155	12.3 oz/yd
B	1.50	60" Mod. D	125	1.25 yd/lb
C-2	$2.34/loom/week	C-3	164	.853 lb/sq yd
D	$.0035/loom/hr	40"E	172	15.0 yd/lb
K	$134.84/loom/yr	50"C-3	142	8 oz Terry
O	$15.00/loom/mo	———	———	———
P	.50% (cost/lb)	D, P, XP	124-143	16 oz/sq yd
T	1.2	36"X	182	1.74 yd/lb
	.75	40"E, X	160	1.92-4 yd/lb
	1.0	42"X	170	1.72-3.06 yd/lb
	1.25	44"X2	182	1.35-3.06 yd/lb
	1.25	44"XD	178	1.35-3.06 yd/lb
U	.94¢ per 40 hr	40"E	165	3.25 yd
	1.56 per 40 hr	50"C-5	161	3.8 yd
	1.42 per 40 hr	60"K (Dobby)	130	2.06 yd
	1.15 per 40 hr	40"Dobby	161	2.25 yd
X	$2.75/loom/40 hr	XK	172	2.00 yd/lb
	$2.81/loom/40 hr	60"E	135	1.60 yd/lb

The name is news...
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PROVEN COLORFASTNESS IN

CAPTIVE COLOR
"...CAN'T ESCAPE!"

With Coloray, Courtaulds has achieved the highest degree of color security possible with modern chemistry. This is no experiment. This is color permanence proven over the years (since '38) . . . on a vast scale (British production is now 25 million pounds a year) . . . and in all kinds of products (dresses to draperies to men's shirts to convertible car tops).

Not color added . . . or color applied . . . but color that permeates the original viscose solution and is actually imprisoned in the fiber. *Captive Color—Can't Escape!* Coloray is fast to sunlight, washing, perspiration, dry cleaning, crocking. It is not affected by standard finishing processes. It outperforms traditionally dyed colors, not only in colorfastness, but in brilliance, versatility and economy.

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Courtaulds — Over 150 Years in Textiles... 50 Years in Man-Made Fibers

Courtaulds, Ltd., of England, developed the viscose process in 1904, established the rayon industries in the U.S.A. and Canada, and fifteen years ago originated solution-dyeing. Altogether, the Courtaulds organization operates in nine countries of the world! American Courtaulds is now delivering Coloray at lower cost and in greater quantity than ever before.

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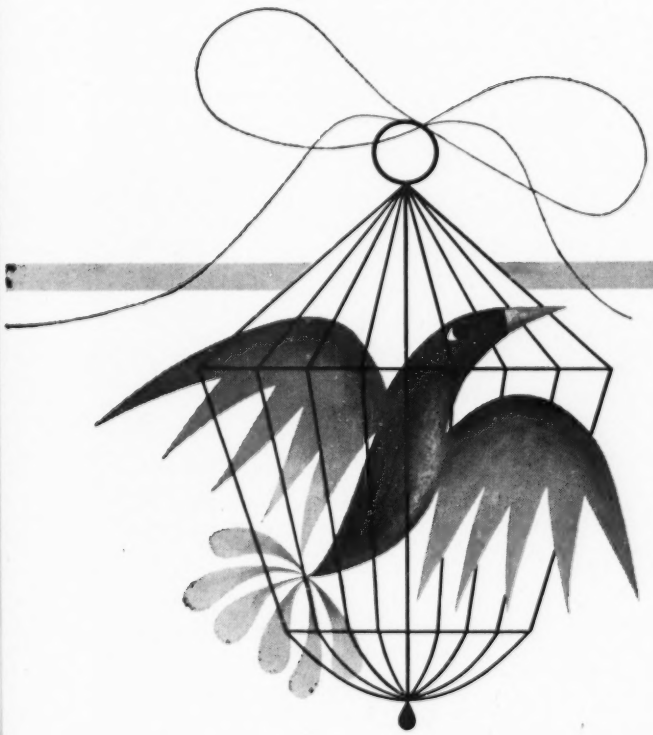
SOLUTION-DYED RAYON STAPLE



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COLOR VERSATILITY
— unlimited blending possibilities

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— great savings over vat-dyed colors, low waste factor in processing

COLOR WITHOUT LOSS OF YARN QUALITY
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bright shades with sales appeal, with Dynadye-V in the dyebath.

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dyeing through better bath control, with Dynadye-V's superior wetting and penetrating action.

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Many of the headaches in dyeing synthetics are cured to a remarkable degree when Dynadye-V is added to the dyebath. It assures complete dye dispersion, helps prevent tarry deposits and spotty blotches. Dynadye-V, a solubilized substituted phenol, has excellent wetting and penetrating qualities, aids in level dyeing action. It gives excellent wet and dry crockfastness. It is equally effective on straight or blended fiber combinations, in yarn, skein, piece or finished goods. Get the facts — write for Dynadye-V Technical Data Sheets today.

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in the past 24 hours is forwarded daily to the weave room by the cloth room overseer.

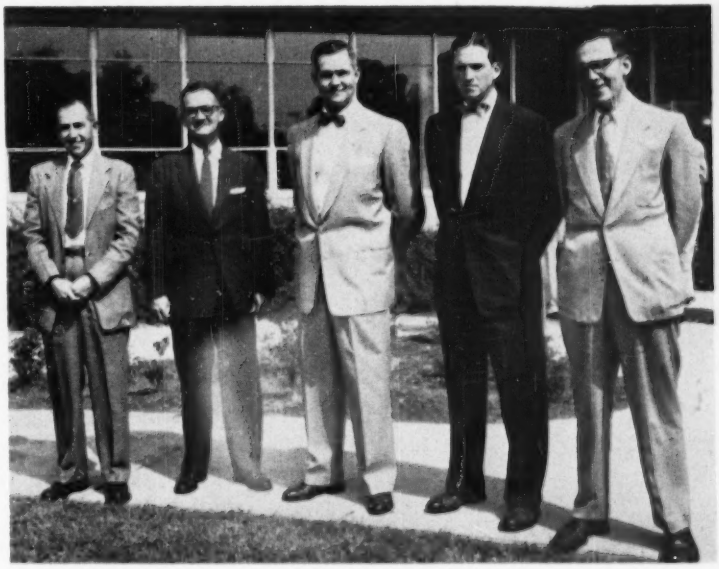
(2) Weave room secondhand inspects cloth on each loom every four hours. When new warp is put on loom, the fixer inspects the cloth and checks the loom setting, reed, and pick gear. In cloth room any defects found are immediately shown to overseer or secondhand who in turn sends for weaver and talks to him about cloth.

(3) Performance is indicated by graphs on loom fixers' sections with control limits set by experience on different loom models. Also, reports of defective fabric found in cloth room are rendered to secondhand several times each shift by quality control clerk.

(4) Smash man is required to inspect cloth on each loom twice per shift. Loom fixer and overhauler or secondhand inspects the cloth on each loom at least once per shift. A ticket is filled out in the cloth room for each piece of off-quality cloth, and these tickets are sent to weave room secondhands within an hour after cloth is graded. Secondhand makes record of each ticket for follow-up and future reference and then passes it on to loom fixer who goes at once to loom and makes needed repairs and adjustments. If off-quality cloth is due to other than mechanical causes, the secondhand takes immediate action to correct the condition.

(5) Rolls of cloth from each weaver's job are inspected in the weave room and defects listed and shown to the weaver by the supervisory personnel. In addition, cloth is burled and graded in the finishing room, defects are listed, and a record of them along with the weaver's initials and the loom number is returned to the weave room.

Should Rates Differ for First and Second Quality? Thirteen answers to this question revealed that managements of five mills feel that there should be a difference in rates for production of first and second quality fabric, whereas seven do not think this a good idea. The other mill responded "we think that all operators' pay should be based on quality and not production."



FROM GEORGIA AND SOUTH CAROLINA. Left to right: Mac Isaacs and Russell Sewell of Bibb Mfg. Co., Columbus, Ga.; Calvin Stansell of Industrial Products, Greenville, S. C.; Frank Walsh of J. P. Stevens & Co., Inc., Seneca, S. C., plant; and Ed Hertwig of Bibb at Columbus.

It was the opinion of one mill man that paying a higher rate for first quality cloth does help but the best way to improve quality is to develop a pride of quality workmanship in each employee from sweeper to secondhand. "We do not have different pay rates," he said, "but we give production prizes to the weaver for the highest per cent production and lowest per cent seconds. These are cash awards, and 12 such prizes are given each week."

Weaving Fabrics Having Ends with Different Take-Up from a Single Beam. There are two methods for doing this, one overseer reported: The first is to vary the tension on the section beam at the slasher so that the let-off on the loom is different. The other is by running the slack ends over a bar which will pull ends up so as to keep a constant tension on them as the cloth is woven. When the limit of this is reached, the ends are then cut and pulled back through, thus taking up the slack and permitting weaving to continue.

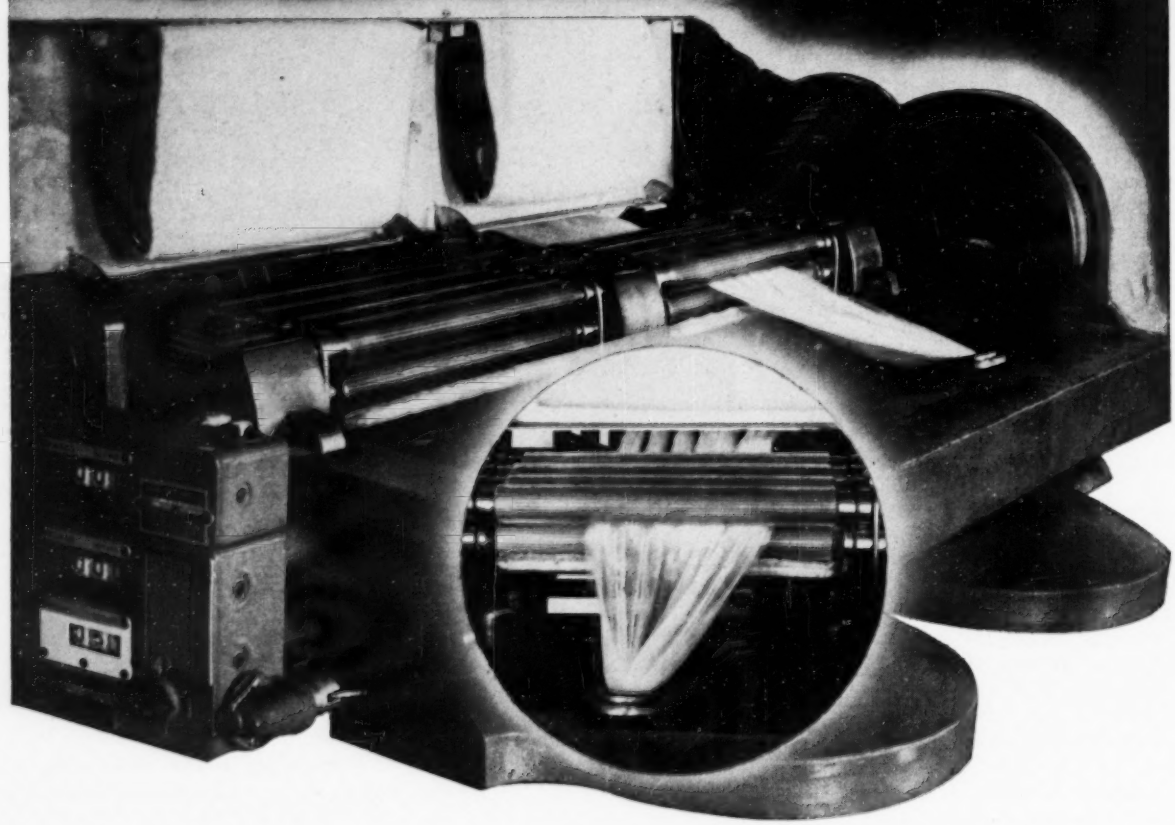
At a plant where several ends had been grouped together to form a cord in the cloth and trouble was experienced with ends running slack, it was corrected by changing the outside ends to a dent in the reed occupied by the ends not in the cord but adjacent to it.

Preventing "Button Holes." Analysis of the suggestions submitted by ten mills answering the question "How are 'Button Holes' prevented on the looms?" indicates generally that the warp should not be permitted to get slack and excessive tension on the filling should be avoided. One mill man put it this way: "The only way we know of to prevent button holes is (1) run the warp as tight as practical, (2) keep reducing the tension on the filling until button holes stop."

Specific measures that can be taken with regard to filling include: Free shuttle eye of any wild yarn, set bristles to prevent ballooning, see that bobbin is properly aligned in shuttle, be sure that filling package is not too large for shuttle, and check for broken or loose shuttle eye.

As for the warp, be sure that selvage yarns are put on loom beam correctly, run warp at correct tension, see that temples are

The Ideal Drawing for Fine Count Yarns



Manufacturers of even the finest count yarns are discovering that they can now get the deeper crimp and better drawing that metallic rolls give . . . with none of the drawbacks formerly associated with metallic rolls.

Ideal High Speed Drawing Rolls float on ball bearings and cannot bruise or shear stock. Their patented ball bearing spacing units keep the metallic rolls in perfect alignment for years . . . without the slightest adjustments. Because these spacing units do not turn or transmit power, there is no danger of their wearing to throw rolls out of line.

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In addition to producing better quality roving, Ideal Drawing Rolls operate smoothly and efficiently at much higher speeds. Two Ideal equipped frames outproduce three or more conventional frames and therefore save on labor, power, floor space, and original investment. They also run more quietly and require practically no work stoppages for cleaning or reconditioning.

Whether you spin coarse or fine counts you will profit by investigating the many advantages of Ideal High Speed Ball Bearing Drawing Rolls* before you replace a single worn-out roll. Write, wire, or call for full information.

*Patent Nos. 2,610,363; 2,490,544; 2,412,357. Other patents pending.

Ideal Industries, Inc.
Bessemer City, N. C.

set at fell of cloth to hold cloth at correct width, set lay closer to fell of cloth, and check timing and setting of harnesses.

Experience of a mill weaving terry towels shows that button holes can be prevented by drawing loop thread in first and third harness not more than four ends in each harness eye under magazine. On box ends, second and fourth harness, not more than four ends in harness eye.

How Do You Run Traverse on Filling Spinning? Of the eleven mills responding to the question "With reference to the running on the loom, for counts from 10s to 20s, which is the best way to run the traverse on filling spinning — down slow and up fast, or down fast and up slow," four prefer the former and five the latter. Two mills use rewound filling.

Doffing Cloth from Looms. Several methods are used to determine when to doff cloth from looms, the most common being cut marks applied either at the beamer or the slashing process and use of measuring stick or gauge of some sort. Cut meters on the looms are utilized in one mill reporting on this question, while another fills up the cloth rolls before doffing looms.

A unique method described by one mill man is as follows: Each loom has on it a card giving style, filling, selvage, etc., including the minimum required yardage per roll and the inches of cloth roll size to give this yardage, and the average yards per roll required and the measurement. For example:

Style 1804, 52″ 56 x 44 — 1.51 crepe

Cloth roll size:

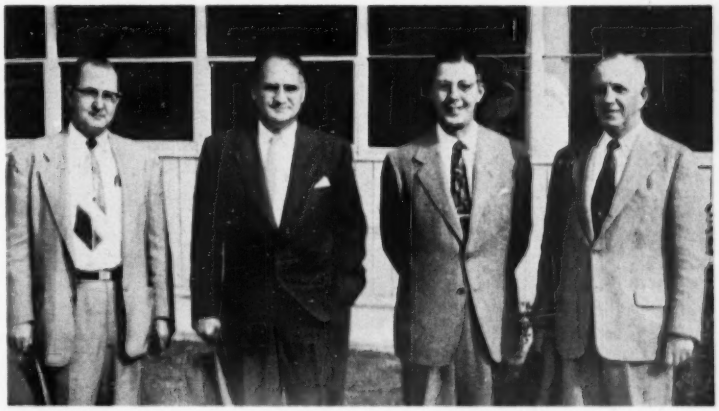
Min. 60 yds; 2¾″

Avg. 120 yds; 4¼″

Measurements are from cloth tube to outer edge of cloth roll.

To keep cloth clean some mills have the doffer cover the roll of fabric with an apron as it is taken from the loom, others doff directly onto a cloth dolly or truck to avoid cloth roll getting on floor in weave room, and some do both.

Nine of the 15 mills answering this question use paper tubes on some if not all of their cloth rolls.



FROM MISSISSIPPI TO ATLANTA went C. O'Neal Walker (left) of Erwin Mills, Inc., Plant No. 8 in Stonewall. With him in this photo are R. P. Hardeman and J. A. Byars of Riegel Textile Corp.'s Trion, Ga., and Ware Shoals, S. C., divisions, respectively, and Bill Kirby of Penick & Ford Ltd., Inc.

Here are things done to prevent telescoping: Make sure cloth tube hits both sides of cloth roll rack, keep traverse springs as nearly equal as possible, level take-up roll, keep racks and rack gears clean, replace cloth roll bearings when worn, start new roll of cloth with care.

There were almost as many methods for transporting rolls of cloth to the cloth room as there were mills reporting. Some of them are:

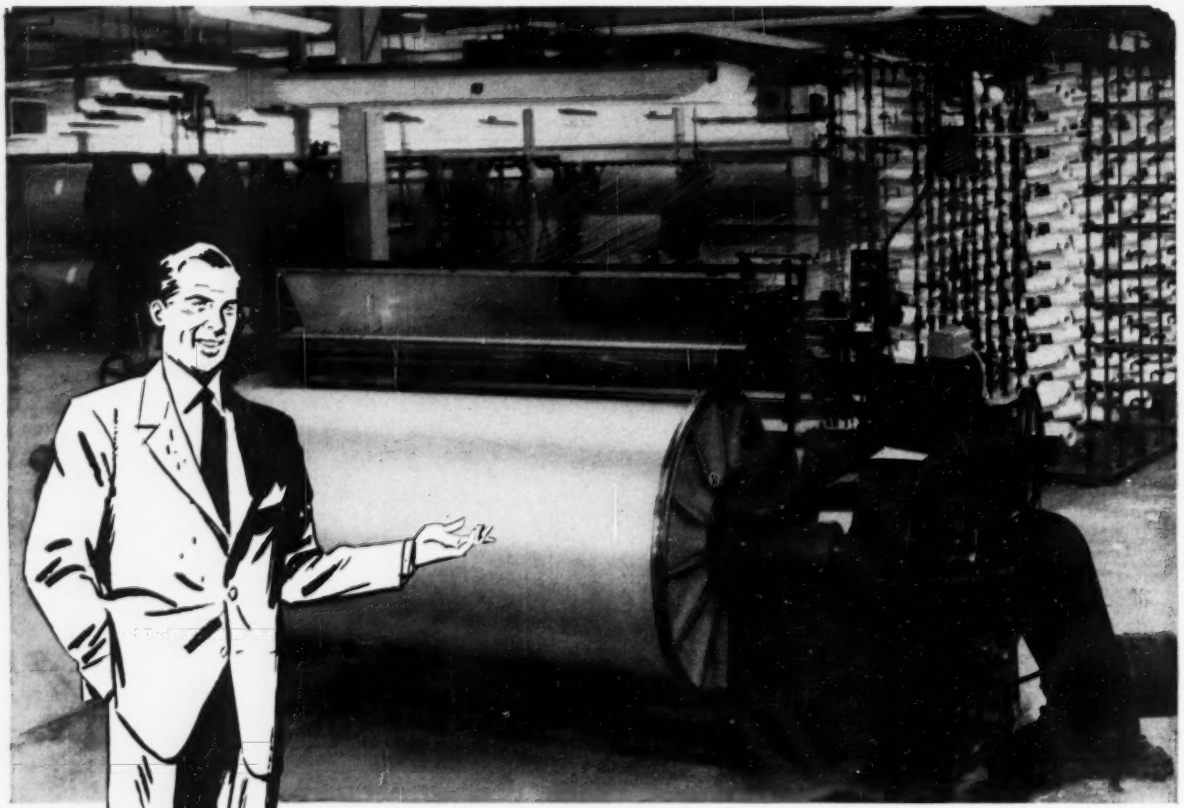
Mill A: Cloth rolls are loaded onto a rack in the weave room, and this rack is moved to cloth room by hydraulic lift truck.

Mill D: Cloth is rolled down alley on dolly to cloth elevator where it is rolled off truck into elevator which automatically deposits roll on table in cloth room underneath weave room.

Mill G: We have an overhead

Here's How Often Georgia Mills Replace Quills

Mill	Replaces	Loom Speed (ppm)	Cloth Construction	Quill Running Time (Min.)
A	7 quills per loom per 144-hr week	—	—	—
C-2	15% yearly	164	44 x 68	8.5
D	1 quill per loom per week	—	—	—
E	1 quill per 100 loom hours	147-197	Industrial Sheetings and Twills	3-6
K	1000 quills weekly on 1237 looms	149	—	9.0
S	2 quills per loom per week	165	48 x 44	—
T	10 quills per loom per month	160-182	31¼″ 40 x 44, 5.40 to 43¾″ 108 x 56, 1.35	1½-12
U	.4% per 120 hours per week	103-165	—	1-6
X	All quills in 12 months	135-165	1.60-2.00 yd/lb	2.4-8



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First introduced in 1938, aluminum warp beams number over 400,000 now in service! And, in all these years, *there has never been a single failure of an aluminum beam from deflection or crushing!*

Clean, strong, lightweight aluminum warp beams increase machine speeds—decrease handling and stacking effort. Because they are metal, *they will not splinter!* In addition, they will not groove under the tremendous winding pressures of synthetic yarns. Beams of light-but-strong Alcoa® Aluminum Extrusions and Castings or Forgings are available from many of the country's leading beam manufacturers—including:

- HAYES INDUSTRIES, INC.
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For additional information on lightweight aluminum beams—made from a specially developed Alcoa Aluminum Alloy, write: Aluminum Company of America, 1943-A Alcoa Building, Pittsburgh 19, Penna.

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Alcoa Aluminum

ALUMINUM COMPANY OF AMERICA

track with electric lifts that covers the entire weave room.

Mill K: We have large trucks in different parts of weave room. When full, the doffer pushes them to the cloth room which is on the same floor and is part of the weaving department.

Mill T: When doffer fills his truck, which holds about 10 rolls, he pushes it to main aisle and places cloth on a skid which holds about 24 rolls. The filled skids are taken to cloth room by an electric transporter. Cloth from looms on second floor directly above cloth room is dropped through an inclined chute to the cloth room.

Mill Y: We use a large truck with ball bearing wheels which is pushed to the cloth room by the cloth doffer.

Checking Cloth Weights. Cloth room reports of actual yardage and actual weight of rolls or bales of cloth are utilized for checking cloth weights in the 13 Georgia mills answering this question. In only one plant is the cloth weight corrected to a standard moisture content.

Weaving Filling Twills. These are methods employed to produce sharp twill lines in filling twills: Adjust warp line with respect to shed to provide very little cover with the warp yarn; set stop motion girt and take-up roll high enough to give a reasonably slack top shed and tight bottom shed, the bottom shed just clearing the shuttle race and the harness timed 2¼" from the fell of the cloth; use two-ply filling.

As to how much difference in warp and filling numbers is desirable, one mill man finds that there should be approximately ten numbers difference, the filling being the largest in diameter. The individual suggesting the use of two-ply filling yarn recommended that it be approximately 33 to 50 per cent heavier than the warp yarn.

Two of the mills responding to this question prefer to weave the fabric face up, while one believes that face down is the better.

Loom Cleaning. To reduce to a minimum the amount of grease and oil on the cloth, practically all of the mills clean and lubricate their looms thoroughly when the warp is out and supplement this by blowing-off certain parts of the loom at intervals ranging from a high of once every eight hours to a low of once every three weeks.

In at least three mills looms are cleaned with mineral spirits and compressed air at warp out. No mention was made of blowing-off looms in between times. The upper parts of the looms are vacuum cleaned once per 48 hours and blown-off once per 96 hours in another plant; filling grates are cleaned once each eight hours.

To prevent lint and oil and grease being blown from the loom being cleaned to those adjacent to it **Mill H** uses a portable screen at each end of the loom and covers the opposite loom with an apron.

Frequency for cleaning overhead, including duct work, varies from daily to once every six weeks. Unsuccessful attempts were made to use cloth covers over individual looms or groups of looms when cleaning overhead, **Mill D** reported. It was found that better results were obtained by blowing the overhead more often. "Our present frequency is twice per week and in some sections of the room once per day (24 hours)," the reply stated. "We have also changed to wiping the overhead duct work and lights. In connection with this we built a screen attached to the ladder to catch the lint wiped from these overhead surfaces. Defects from loose lint have decreased since these methods were adopted."

At **Mill H** ceilings are blown down while looms are running, making a round each week. Air change ducts are cleaned with compressed air every 1½ weeks, using a rolling platform. Fluorescent lights and fixtures are wiped with a dry cloth, using a rolling platform that passes over the looms, once per four or five weeks.

The majority of the mills clean overhead during the week, but four of them wait until the mill is down on the week end.

Weaving Filament Rayon. The question asking for experience in weaving filament produced only one answer. 4 x 1 Jacquard looms are utilized for weaving 300 and 600 denier yarn, 2.8 oz of yarn on a 10⅛" quill. Wooden shuttles with both bristles and fur perform satisfactorily, without oil being applied to the filling yarn. Leather is used on shuttle boxes and race plates rather than fur.

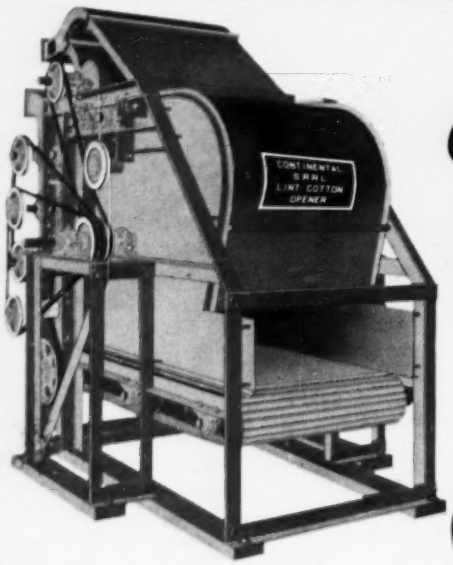
Fiber-Sided vs. Wooden Shuttles. Limited experience was reported with fiber-sided shuttles. Ten mills responded to the question, six of which either had or were in the process of trying the fiber-sided shuttles. Results obtained by mills using them on a production basis are as follows:

Mill J: We like wooden shuttles best on our XP looms and fiber-sided on our C&K looms. Single screws are used on shuttle springs.

Mill K: We use both fiber-sided

Ways to Prevent Slack and Tight Tape Selvages

1. Experiment by changing draw in reed — vary ends per dent and skip dents.
2. Put selvage yarns on section beams and size.
3. Lay selvage ends on loom beam correctly — high beam on selvage will cause slack selvage; low beam, tight selvage.
4. Beam warps straight — do not use beams with crooked heads and spindles.
5. Have tape motion and pick motion timed so that shed will be open when shuttle enters and leaves it.
6. Have tape selvage ⅛" of race board, each shed opening the same.
7. Keep good tin fillet on sand roll and good temple burrs in temples.
8. Have loom fixer check all selvages twice per shift; also have weavers check twice per shift.

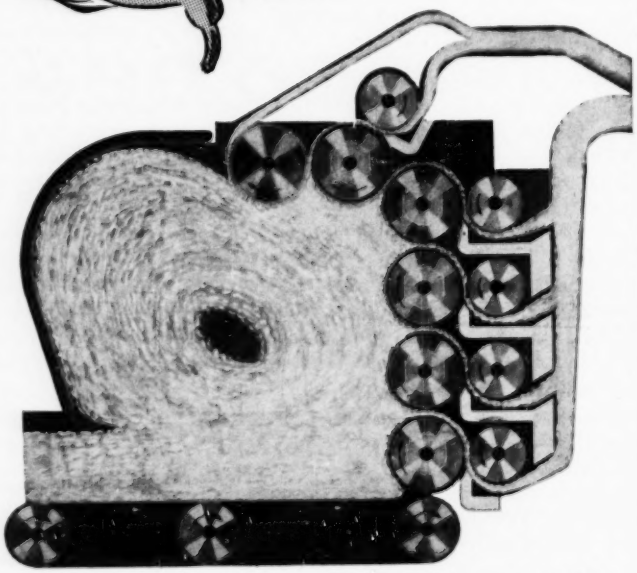


Continental's SRRL LINT COTTON OPENER

SAVES SPINNABLE FIBRE
PRODUCES BETTER YARNS
IMPROVES PROCCESSING

This revolutionary new type cotton opening machine was developed by the Southern Regional Research Laboratory and first manufactured commercially by Continental. Its prime function is to open and fluff cotton. Laboratory tests and mill experience have shown it does this at high capacity without damage to the fibre. While designed primarily to facilitate cleaning machine-harvested cotton through better opening, it is an excellent blender. This makes it also valuable for high grade cotton. Initial cost and operation are both low.

We invite you to write for Bulletin 208 which gives complete description



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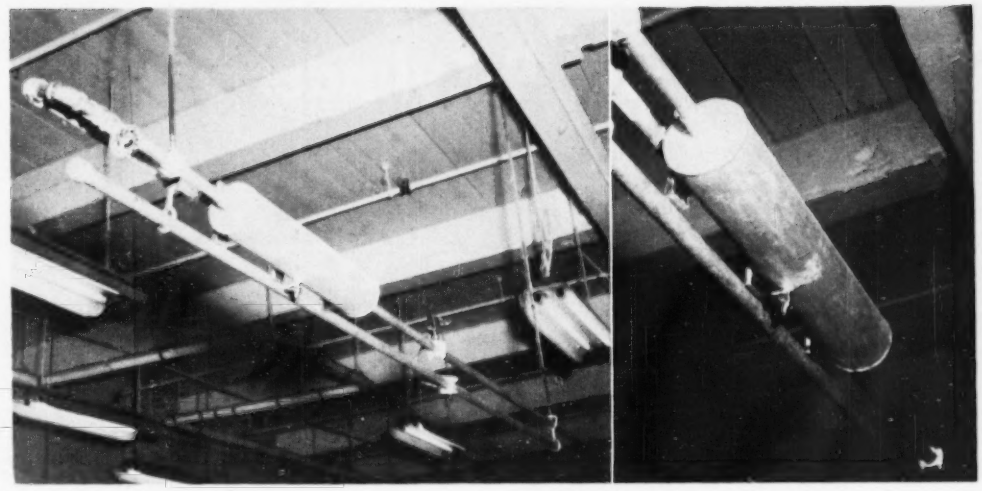


Condensate in Air Lines of Humidification System Collected in Tank

The problem of streams of water coming from the humidifying system when it is first turned on after a shut-down has been solved at Cone Mills Corporation's Edna Plant, Reidsville, N. C., through a suggestion made by employee Robert L. Talley, Sr.

His idea, which was adopted by management, was to install a tank at the end of each air line of the humidifying system, to take care of water that collects in the line because of condensation. The condensate now collects in the tanks, and is drained off through a small spigot.

Mr. Talley's idea won him a cash award through the Cone Mills Employees' Suggestion System.

and wooden shuttles on our 37½" Draper and C&K looms. We use some fiber shuttles with single screws on springs. On all XP Draper and C Model C&K looms we use a larger shuttle with double screws.

With the fiber-sided shuttle if you happen to get a piece knocked out of the fiber, you have to replace the shuttle as it is very hard to smooth the place off sufficiently for additional use. We have also found that a rough place in the leather on binders or box mouths can wear fiber-sided shuttles.

We have never made any specific tests to compare fiber-sided shuttles with wooden shuttles to my knowledge. We do know that for some of our dobby patterns the fiber-sided shuttles are so heavy we cannot use them. On all of our looms where they are used, we have to use more power and that means a tighter box.

Mill P: Fiber stays truer and lasts longer. These shuttles do not crush easily. Single screws are used on shuttle springs.

Mill U: We use fiber-sided shuttles on slow-speed, heavy looms only. We use wooden shuttles on high speed looms. This is due to the fact that fiber shuttles have a tendency to stick in the box when running on high speed looms. Single screw is used on shuttle.

Atmospheric Conditions for Weaving Drills, Twills, Sateens. The size formula was not changed in three mills weaving drills, twills, and sateens, both light and heavy fabrics, when the weave room was converted from standard type of humidification to air changing. Best relative humidity and temperature for most efficient weaving was considered to be as follows: **Mill E,** 85%, 80 F; **Mill H,** 78-80%, 78-82 F; **Mill T,** 88%, 76 F minimum.

Stripping Quills. The majority of Georgia mills strip quills by some sort of machine, if the 16 answers to this question can be considered a fair sample. Only two of them strip by hand, and one uses a combination system whereby quill collector removes all loose yarn from quills by hand and bunches by machine.

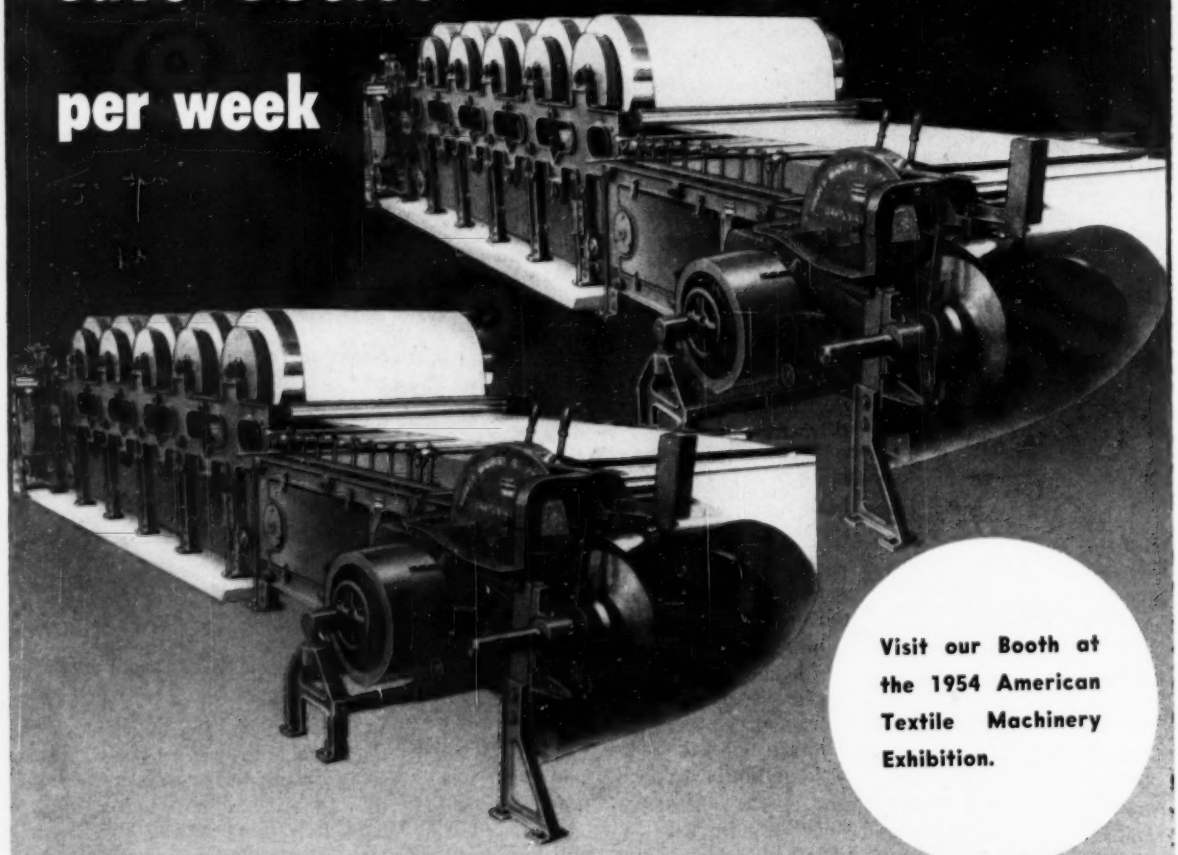
The practice of reconditioning quills has not been installed in any of the mills reporting.

Spring Jacks on 60" Looms Making Heavy Fabrics. "We replace spring jacks with pull-down springs to get enough tension to pull down the harness on heavy goods," reported **Mill H.**

Mill K: Our experience is limited on this subject as we had only six sets of spring jacks installed at one time. We ran into difficulty at the start and never were able to get spring jacks to work properly for us. We had to revert to straight springs with floor spider to get desired results. This was on 60" looms running heavy grade ticking.

2 new Cocker 9-Cylinder Slashers

Save $500.00 per week



Visit our Booth at the 1954 American Textile Machinery Exhibition.

A mill replaced five old style slashers with two Cocker 9-Cylinder Slashers. Carefully kept records show that this change-over has saved them $500.00 per week.

These savings resulted from reduced labor, both in production and maintenance; from increased production; and in better weave room efficiency. Considerable floor space was also released for other purposes.

We will be glad to show you an analysis of these savings and how they can be applied to your production. Write or wire for full information.

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Machine and Foundry Co., Gastonia, N. C.

WORLD'S LARGEST DESIGNERS AND BUILDERS OF COMPLETE WARP PREPARATORY EQUIPMENT

EXCLUSIVE

the good old Subsidy

By Ringgold Arden

SOMETHING for nothing is the most potent political medicine ever devised by man. The government subsidy is one of the most soothing and delightful means of administering this potent remedy for economic dislocations, and is very popular with political medicine men.

Since a great many persons do not seem to understand just what a subsidy is, and frequent claims are publicly made that this, that, or the other thing is a subsidy when it isn't, we had better set forth the definition given in Webster's dictionary, which says that a subsidy is "a grant of funds or property from a government, as of the state or a municipal corporation, to a private person or company to assist in the establishment or support of an enterprise deemed advantageous to the public."

Every now and then somebody breaks into print with a denunciation of the tariff as a subsidy. A tariff is not a subsidy by any possible stretching of the definition, and it has nothing in common with a subsidy. Any subsidy inevitably involves the paying out to someone of public funds.

The object of a tariff is to collect funds, and not pay them out. The purpose of a protective tariff is to control imports of products which could compete with domestic products on a basis which domestic competition could not meet so long as the abnormally high American wage schedule is maintained and the abnormally high American taxes have to be paid. A protective tariff is aimed solely at restricting a market to American suppliers of this market.

When one group of American suppliers cannot compete with another group, the good old subsidy immediately comes to the fore, and the government is importuned to put up money out of the funds extracted from the taxpayers at large to support that segment of the economy which is no longer able to stand on its own feet.

Along about the turn of the century, some of the political big shots in Washington decided that the United States ought to have a merchant marine. The country had one of the world's best merchant fleets around the turn of the previous century, but it had fallen into decay, as young Americans found something ashore that they would rather do than go to sea, while the young men of many other nations were glad to get seafaring jobs at wages and under working conditions which caused the young Americans to turn up their noses.

The Twentieth Century merchant fleet could not possibly have been established on the basis of competition with the shipping of other countries because our sailors and shipbuilders had to be paid more, and permitted to work less, than those of the other countries. The happy solution to this problem was to establish the merchant fleet anyway and let the government pay the shipowners the difference between what they could make in the shipping business, and what they had to make to stay in it.

This proposition started a terrible row that shook the country for several years, and ultimately the ship subsidy proposition was dropped for a while, and the whole idea was considered a very hot potato, which politicians would do well to avoid. They could not avoid it long, however, and we have been liberally subsidizing shipping for many years.

Some years later, the airplane industry began to develop and presented the same problem. It furnished an extremely expensive form of transportation and investors took a dim view of its ever being able to make its own way. Again, the good old subsidy was called to the rescue, and so long as the taxpayers are willing to pour a few hundred million dollars a year into subsidizing the airplane industry, it will do very well in-

"Every dollar that the government grants to anyone has been taxed away from somebody, and for the government to continue to prop up shaky segments of an economy by raids on the sound segments, is bound to make them all shaky in time."

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ALUMINUM ACETATE (7% AL_2O_3)
AND
ALUMINUM FORMATE (9% AL_2O_3)

Both are low in free acid content, free of sulfates, chlorides and sediment.

Write for complete information today.

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Official U. S. Army photos

"Well, it's not the way we spin cotton, but that's the way we started not too long ago in America," commented Sgt. Martin Wexler, formerly superintendent of Gemco International Corp., a Fall River, Mass., narrow fabric mill, who is now in the Army in Korea. Here Sgt. Wexler watches the final operation on this ancient Korean loom in a village not far from the headquarters area. "It isn't quite the size of the looms we used back home, or as modern," he said, "but it does the job."

Cotton Textile Manufacturing, Korean Style

"The principle is the same, but there's quite a difference in production," mused Sgt. Martin Wexler, unit chief of the pay section for the 160th Infantry Regiment, at the Finance Office, Headquarters, 40th Infantry Division.

In a village outside the gates of the company area, Sgt. Wexler, on a picture hunt, discovered a crude loom in the backyard of a Korean home. "Cotton grows right outside their door, so they've got no transportation problem. They just grow it and spin the thread and weave the cloth, all in one place. Makes it quite a bit easier because there's no middle man."

Sgt. Wexler knows about the business first hand, because before he came in the Army, he was plant superintendent at the Gemco International Corporation, Fall River, Mass., where the average narrow fabric loom measured 35 feet by 13 feet, by 10 feet.

"I understand that the textile mills back home have got quite a transportation problem in getting the cotton, then selling it after it's been turned into cloth," said the Sargeant. "If we had this sort of 'one stop, one shop' operation back home, why we'd have it made."

An immigrant to New England from his native Brooklyn, Sgt. Wexler has spent many an hour watching the nimble fingers and quick hands weave muslin from the coarse thread. "I figure that I'm getting quite a background on the textile 'industry' on the home level here in Korea, and you know, it reminds me that not too long ago in our country, that's how all the textiles were produced . . . in the home, on crude spinning wheels in each farm house and city dwelling, often spinning 18 hours a day. Watching this Mama-san and her old loom gives you an idea of what our ancestors had to face. They didn't have it too easy, but then they didn't have TV to watch, so they didn't miss too much, I guess," observed the sargeant.

deed and will go happily forward to the day when maybe it will be strong enough to get along without subsidies.

Back in the Nineteenth Century, the railroad industry was heavily subsidized—usually with tremendous grants of land, some of which could be sold to gullible settlers, and other which was too poor to sell to anybody was later found to cover up large quantities of oil.

Some 30 to 40 years ago, when automobiles in huge droves had to be pried out of the mud in every wet spell, a great many impecunious states felt that the federal government should subsidize the building of some good roads within their boundaries, and so the taxpayers, instead of digging up the money for their own roads, sent it to Washington first, for some suitable deductions, before getting it back to spend on the roads.

The subsidy always has about it the happy, comfortable feeling that it is all free and really doesn't cost anybody anything, so that it was not surprising during the New Deal days to see many plans put forward for subsidizing practically everything. Anything which seemed to be desirable, or even halfway desirable, and which couldn't make the economic grade under its own steam, was to be subsidized. Many of these subsidi-

After they've gone . . .

Carrier air conditioning is still on the job

Let's turn the clock ahead to 3 A.M. at this big Apex Hosiery Company plant in Philadelphia. The mill is dark and empty. Employees have long since gone home. But the Carrier air conditioning system is still on the job—working 24 hours a day, 7 days a week, winter and summer! ▪ Why does Apex operate Carrier air conditioning all night long? Here's why: the uniform temperature (and humidity) guards against expansion of delicate machinery parts and eliminates time lost waiting for yarn

to regain sufficient moisture. There are no "start up" headaches. And the mill operates at peak efficiency all through the day. ▪ Not only machines but men, too, work faster and better in a climate that's uniform and comfortable. And the way to get uniform weather inside any mill, in any season, is to install *modern* Carrier air conditioning *with* refrigeration. Or add Carrier refrigeration to your evaporative cooling system. ▪ For complete information, please call the Carrier office nearest you. Or write: Carrier Corporation, Syracuse, New York.

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zation schemes took hold.

Practically every branch of agriculture is subsidized today, and at one time it was the dream of some of the planners to literally communize agriculture. It is the contention of some experienced peanut merchants that the peanut industry has been communized and is under the control of the Department of Agriculture to almost exactly the same extent that the peanut industry in Russia is under the control of the Commissar of Agriculture.

The TVA empire, and its kindred Authorities, are another example of a variety of subsidy. The government pours into one section of the country money taxed principally out of the rest of it, to build a vast power empire under the pretense that this is a flood control proposition. It is probably well within the province of the federal government to undertake flood control projects, but many competent engineers have pointed out that dams for flood control and dams for power generation are two entirely different things.

If you are interested in flood control, you want the reservoirs behind the dams to be empty. If you are interested in power, you want them to be full. The two propositions are antagonistic. Anybody who will get a map of the TVA territory is likely to be easily convinced that the whole proposition was designed for the generation of power, and only incidentally for flood control; yet the entire population of the United States was taxed to build this grandiose empire, that the inhabitants of the area could enjoy cheaper power than the people who put up the taxes for making it possible.

Some 75 or 80 per cent of the cost of this adventure was charged off to flood control, and the power plants were therefore subsidized to this extent so that they are nominally able to produce very cheap power. If they were forced to sell their electricity for enough money to amortize the cost of the power generating plants and pay back the poor suckers who were taxed to provide all of these facilities, TVA power wouldn't seem like such a bargain.

The fiction that the TVA venture was a flood control proposition was rudely dispelled when the TVA Administrator began asking Congress to appropriate many millions of dollars to build steam plants for generating electricity. Probably the cost of these steam plants is being charged off to flood control too.

The grandest and most glorious subsidy scheme of them all was, of course, the Brannan Plan for agriculture. Even the people who devised the plan admitted they hadn't the vaguest idea what it would cost the taxpayers, and probably didn't care either. That such a gigantic piece of economic lunacy as the Brannan Plan could ever have been given a moment's serious consideration by our government, shows to what an extent this dependence on subsidies has permeated our governmental thinking.

There are undoubtedly times when a subsidy is justified. The subsidy for building the railroads was certainly justified, because the railroads brought very prompt benefits, far outweighing the cost of the subsidies, and the country could never have developed without these railroads.

The subsidy devoted to the development of the aircraft industry is so tied in with national defense that it is almost impossible to say how much of it is justifiable, and how much of it is pork barrel.

The serious problem is, how far can we go with this sort of thing. If we subsidize agriculture, it is only a question of time until we will be subsidizing industry, and then subsidizing everything. That is, we will have a totalitarian or communist form of government, because when the government undertakes to be responsible for the profitable operation of every enterprise, the government must necessarily completely control all of those enterprises.

A recent tentative attempt has been made to establish subsidization of a branch of the textile industry. Certain groups of textile mills which are unable to survive in a competitive market, have appealed to the government to subsidize them by awarding them contracts at prices based on what they think they need to get for stuff, instead of on what their competitors will sell it for.

Every dollar that the government grants to anyone has been taxed away from somebody, and for the government to continue to prop up shaky segments of an economy by raids on the sound segments, is bound to make them all shaky in time.

Book to Train Union Leaders of Interest to Mills

"Textile Workers' Job Primer" is a 215-page manual designed to help train operatives and their union leaders in handling workload problems. It was prepared by Solomon Barkin, TWUA (CIO) research director. According to Emil Rieve, general president of TWUA, the primer will help union representatives to produce facts which will expose the shortcomings of the techniques favored by management. The preface points out that the tradeunionist who masters the lessons in the book should be able to tell what information he needs in every work assignment problem he meets and should be able to develop sound counter-proposals on work assignments, piece rates, and earnings.

The author feels that the book may also be valuable to managements which are sincerely interested in achieving mature collective bargaining, stating that management has been imposing its techniques on employees and good management would be well-advised to become familiar with the viewpoint of the operatives.

Among the nine lessons (chapters) in the book are those on Job Specifications, Work Duty Charts, Factors Affecting Periodic Duty Frequencies, and Machine Efficiency.

Price of the manual is $1.50. It is available from Textile Workers Union of America, CIO, 99 University Place, New York 3, N. Y.

Warner & Swasey weaving machine *requires supervisor's and operatives' study before going into production. Has high speed, eliminates customary filling waste, and preparation of filling bobbins.*

Vari-Speed control and brake *for dressing frames is compact unit; can be set to stop the reel in any desired position.*

The 84-inch card *has higher initial cost than narrower card, but per foot of carding surface the cost is much less. Fewer man-hours needed for same production. Controls make supervision easier.*

Wool Men: read these reports on modern equipment

SHORT talks on the Davis & Furber 84-inch card, the Warner & Swasey weaving machine, and the Sjostrom Vari-Drive speed control and brake for dressing frames were the technical highlights of the 70th annual convention of the National Association of Woolen & Worsted Overseers in Boston, Nov. 13-14. Gordon Graham of the National Association of Wool Manufacturers spoke on the need for greater tariff protection for the U. S. wool fabric industry.

What the 84-inch Card Can Do for a Mill. Arthur W. Reynolds of Davis & Furber Machine Company outlined the advantages of the 84-inch card. Mr. Reynolds made these points:

1. As a capital investment, the 84-inch card costs 11% more than a 72-inch card, 23% more than a 60-inch card, and 35% more than a 48-inch card. But in carding surface, the 84-inch card offers 16% more than a 72-inch card, 40% more than a 60-inch card, and 75% more than a 48-inch card.

As a capital investment, therefore, the 84-inch card has a marked advantage because, per foot of carding surface, its original cost is much less than the same foot of carding surface on a narrower card.

2. With the 84-inch card, fewer cards will be required to achieve a desired production poundage.

3. Fewer man-hours are needed to produce a given quantity of roving on an 84-inch card than on a narrower card; upkeep and maintenance costs are less, and floor space required for the 84-inch card is not proportionately greater than that required for older types of narrower cards. Just as the modern 72-inch card has been designed to fit in the area of width formerly taken up by a 60-inch card, so can the 84-inch card be made to occupy the width taken up by an older 72-inch machine.

In length, of course, the new wide cards take more space than older, narrower cards because they use larger Bramwell feeders and larger doffers. But in spite of such improvements, over-all length of the new wide cards is not much greater than older, narrower machines.

4. The 84-inch card makes supervision easier for the boss carder because it has been designed, as nearly as possible, to eliminate change gears. These are replaced with variable speed devices, some manually controlled, which can be operated while the card is running. These devices permit changes of speeds which alter weights so as to improve the quality of roving without disturbing the high production efficiency of the machine.

Points at which these variable speed controls have been installed are as follows:

(a) At the spike apron of the Bramwell feeder, to control the speed of the spike apron, and regulated by the demand of the spike apron for stock.

(b) At the metallic breast where a manually controlled variable speed device is installed.

(c) At the center draw feed, two controls are installed, both manually operated. One controls the speed of the traveler. The other controls the lay of the stock into the feed rolls of the finisher card.

(d) At the finisher doffer, a manually controlled device allows the carder to speed up or slow down the finisher doffer while the card is operating. This permits him to make any needed alterations in weights.

(e) Finally, a manually operated variable speed unit functions between the finisher doffer and the divider rolls, controlling the tension on the web.

5. Manpower needed to operate the 84-inch card appears to be no greater than for the 72-inch card, or the 60-inch card. Stripping the 84-inch card by vacuum or hand requires no more labor than smaller cards. The number of tenders needed for the 84-inch card depends upon the type of Bramwell feeder used. In view of the number of good ends of roving delivered by the 84-inch card, it appears, Mr. Reynolds emphasized, that the

Tips for Mill Application of Card Clothing

Preparing Card for Clothing

1. Cut out feed. Strip cylinder and doffer with stripping roll. Let card run free of stock.
2. Stop card. Remove all waste under card, between frame sides, and inside flats at back stand.
3. Replace all worn bearings and shafts on cylinders, doffers, lickerins, and feed rolls. Total wear between shafts and bearings at these member points should not exceed total amount of setting to guage. For example, lickerin to cylinder is usually set .007". When wear between shaft and shroud totals .007", repairs should be made.
4. Line and level card. Cylinder should be evenly spaced between frame sides, and doffer lined up with cylinder.
5. Remove all oil soaked plugs and low plugs. Drive shoe pegs into old tack holes. Finish new plugs even with cast-iron surface. Care should be used in sawing plugs so as not to saw into surface of cylinder or doffer. Extreme care should be used in selection of plugs. Each make of card requires a particular size and taper. All selvage plugs should be cut off even with under side of cylinder to prevent possibility of plugs being knocked up from chokes in sides of cards. Raised plugs will cause damage to cylinder clothing.
6. Cylinders and doffers which are out of round more than .005 in. should be surface ground to save undue grinding of fillet wire and to assure good setting and quality work.

APPLYING CLOTHING

1. Card clothing is one of the most critical of all mill purchased materials and must be accorded proper respect and treatment. After receipt at mill, clothing should be left in shipping cases in a warm, dry place until ready for use. When a card is to be clothed, the fillet should be unwrapped and unwound into a doffer box and allowed to remain in card room overnight to condition itself to room temperature. No card clothing should ever be applied unless pre-conditioned to room temperature. The card itself and the room in which the card is located should not be less than 85°F.
2. Through carelessness or lack of knowledge when unwrapping, unwinding, cutting starting taper, and threading through clothing machine, much damage can occur, even before actual application is started. The person selected to do the actual clothing should have had a thorough training in the handling of card clotning.
3. The best equipment obtainable should be used. A clothing machine registering not less than 450 lbs. is recommended, preferably one having positively driven tension head with pony brake. All parts of machine should be kept in good condition. Step cone pulleys and tension box surfaces

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should be smooth and even. Tension box should be sufficiently wide to accommodate 2" width clothing without cramping selvage of clothing.

4. Use a power drive unit of sufficient capacity to pull on cylinder fillets at maximum of 450 lbs on 2" width and doffer fillets at 300 lbs on 1½" width. Once the drawing-on operation is started, the power drive assures even tension and eliminates stops for rest (as with man-power).

5. The starting and finishing tapers (1" wide, 4 rows of wire for cylinders; ¾" wide, 3 rows for doffers) should be applied 50 lbs. per row of wire.

6. As the fillet is wound on cylinder, clothier's helper should be constantly rubbing-up fillet to assure all wires being firmly seated in foundation. Stove polish, in cake form, should be applied to the back of the fillet, before or after it is rubbed up. The clothier should double check rubbing-up operation by constantly feeling crown side of fillet as it is going onto card member being clothed.

7. Extreme care should be used in packing-up fillet as clothing is being wound on. Each wrap, or layer, should be packed-up against each preceding wrap. Do not pack-up so hard as to "cup" fillet, but firmly enough to avoid leaving space between wraps. Should bare iron show between wraps, even though correct tension is used, fillet will eventually become so loose as to interfere with settings. Special packing-up tool can be had for this purpose.

8. Cylinder fillets — at the option of the mill — can be drawn on once, or drawn on and left overnight to condition. When pre-stretched, draw on at 250 lbs to 275 lbs, remove after conditioning, and then draw on at 400 lbs to 450 lbs.

YES, *We Reclothe FLATS*

1. For reclothing flats and for other services, we maintain repair shops at Charlotte, N. C., Greenville, S. C., Atlanta, Ga., Dallas, Texas (Textile Supply Co.), Philadelphia, Pa. and Fall River, Mass.

2. While reclothing your flats we can, if you wish, loan you spare sets which will be remilled on the ends, pre-straightened, reclothed with wire desired, ground to guage, packed in sturdy, specially designed wooden cases and shipped as specified. Just let us know the make and width of your cards, number of flats per set, count of wire and number of sets required. Old flats, in usable condition, will be accepted in exchange for the loaned flats, when the program is completed.

3. All flats shipped to Ashworth for reclothing are thoroughly cleaned after old clothing is removed. The screw holes are checked for condition and depth of thread. Corrections are made when necessary.

4. Occasionally, accidents occur on cards, resulting in one or more broken flats in a set which has good clothing. Such broken flats can be quickly replaced by sending to Ashworth a good flat from the set, with instructions to furnish, clothe and grind flats to this sample flat. Special attention is given such emergency repairs in all of our shops.

5. For those mills interested in having flats reclothed in their own plants, portable equipment is available, along with a competent man to do the work. Details on request.

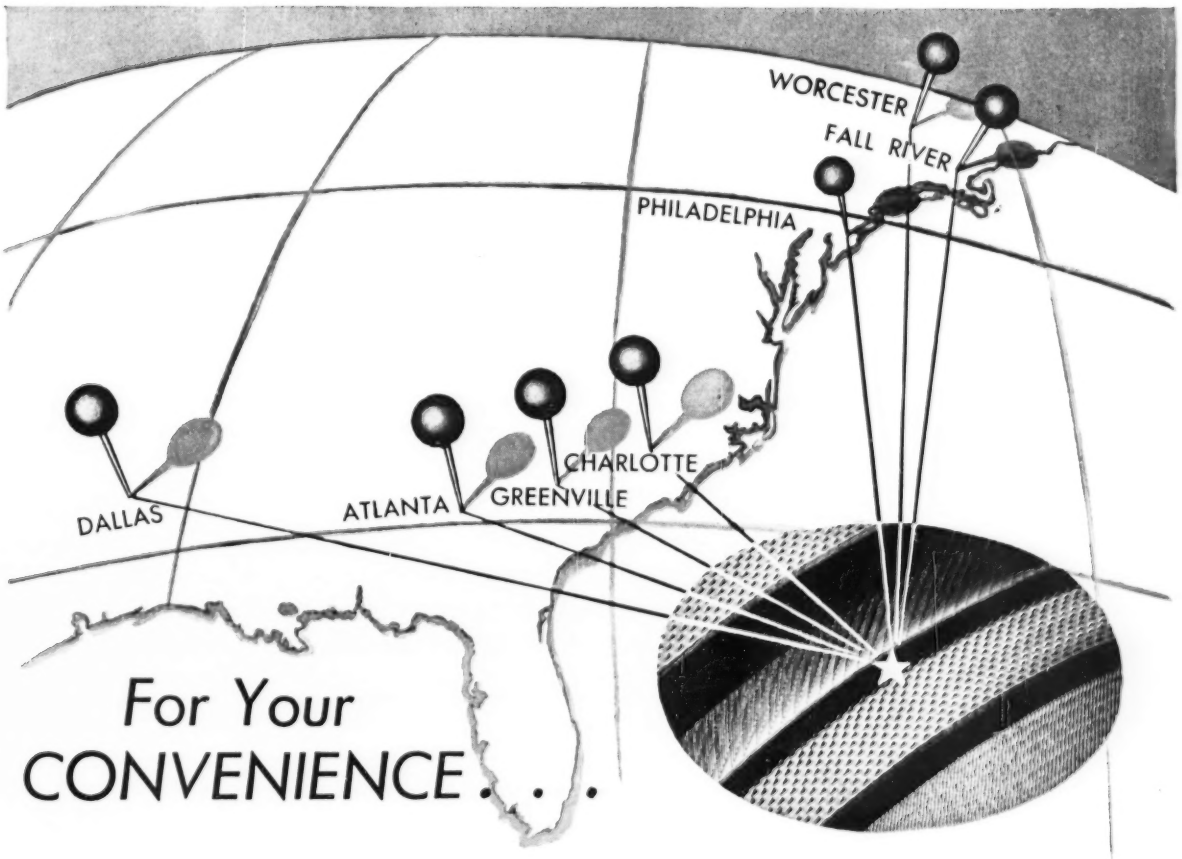
OTHER ASHWORTH SERVICES

Rewinding lickerins • Milling flat ends

Rewinding workers and strippers

Complete surveys of card clothing machinery

NO CARD CLOTHING IS ANY BETTER THAN THE SERVICE BEHIND IT



For Your CONVENIENCE . . .

3 FACTORIES • 6 REPAIR SHOPS • 7 DISTRIBUTING POINTS

Three factories (Greenville, Philadelphia and Fall River), six repair shops (Greenville, Charlotte, Atlanta, Dallas (Textile Supply Co.), Philadelphia and Fall River) and seven distributing points (Greenville, Charlotte, Atlanta, Dallas, Philadelphia, Worcester and Fall River) make Ashworth Card Clothing and Ashworth Service *conveniently* yours.

Nearly a century of manufacturing experience makes Ashworth Card Clothing *dependably* yours.

PRODUCTS AND SERVICES

Card Clothing for Cotton, Wool, Worsted, Silk, Rayon and Asbestos Cards and for All Types of Napping Machinery, Brusher Clothing and Card Clothing for Special Purposes. Lickerin Wire and Garnet Wire. Sole Distributors for Platt's Metallic Wire. Lickerins and Top Flats Reclothed.

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CALL ASHWORTH BROS., INC.

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Ashworth CARD CLOTHING

Ashworth
CARD CLOTHING

It's "Plough Ground"

All Ashworth cylinder and doffer fillets for processing cotton and many of the staple synthetic fibers are "plough ground". Plough grinding consists of running a "plough", with a thin grinding disc directly above it, between each row of fillet wire. Thus the wires or teeth are gradually tapered above the knee to a working point on each side. The front and back of the wire are not ground, so that strength in the carding direction is not sacrificed.

The advantages of plough grinding are as follows:—

1. The tapered points facilitate the untangling of the fibers and help to prevent and remove neps.

2. Plough ground wire strips more easily. Make your own test. Wrap yarn on the shaft of a pencil and attempt to remove it. The yarn piles up just as the fibers pile up on non-tapered wire. Make the same test on a tapered shaft and notice how easily the yarn comes off.

3. Plough ground card clothing retards loading, keeping the stock above the knee and in a carding position.

If you would like to see our plough grinding operation, visit us at Fall River, Mass. or Greenville, S. C.

PRODUCTS AND SERVICES

Card Clothing for Cotton, Wool, Worsted, Silk, Rayon and Asbestos Cards and for All Types of Napping Machinery, Brusher Clothing and Card Clothing for Special Purposes. Lickerin Wire and Garnet Wire. Sole Distributors for Platt's Metallic Wire. Lickerins and Top Flats Reclothed.

ASHWORTH BROS., INC.
American Card Clothing Co. (Woolen Division)

Fall River*†‡ Worcester‡ Philadelphia*†‡ Atlanta†‡
Greenville*†‡ Charlotte†‡ Dallas†‡ (Textile Supply Co.)

*Factory †Repair Shop ‡Distributing Point

3 Factories — 6 Repair Shops — 7 Distributing Points

labor cost for tending the finishers is far less than with narrower cards.

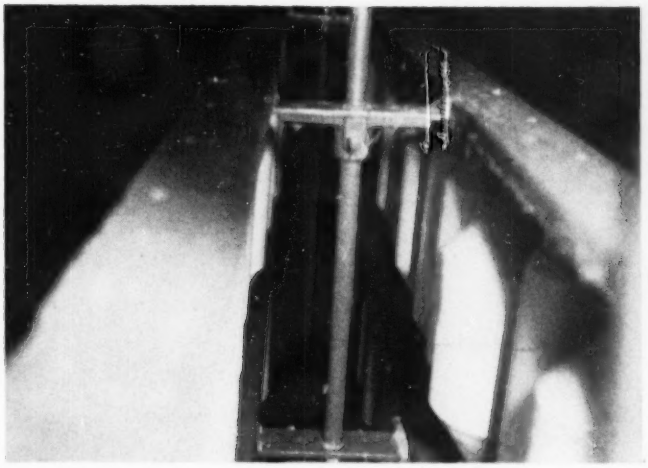
Mr. Reynolds said that the Type G Bramwell automatic feeder used with the 84-inch card has been designed with a standard size hopper, a large hopper extension, as well as a special automatic wool delivery bin chute to which stock is conveyed from the picker room. For the latter two hoppers, the spike apron is fed on demand, which results in even feeding and less labor. Where the automatic bin delivery chute is used, no feeder tenders are required.

The speaker noted that tests show that the variation in fed weights from the Type G Bramwell feeder can be held at two per cent or less. This, he asserted, was an improvement over older type feeders.

Slow-Motion Film Shows Point Damage on Wool Card. Following Mr. Reynold's talk, a short film was shown, revealing a slow-motion close-up of the combing teeth operating on the doffer roll of a conventional card. The film, made in the laboratories of the Bigelow-Sanford Carpet Co., Inc., slowed down the speed of the card 75 times. Mr. Reynolds pointed out that the action of the comb on the web, as shown by the film, clearly did not do the web any good in that it treated the fibers roughly and could be presumed to inflict injury and breakage to the fibers in the web. He expressed the opinion that the 84-inch card he described, since it did not have a comb on the doffer roll, produced an improved web and roving.

How to Insert Web in Rolls. In the discussion which concluded the group meeting, a member asked for advice on a safe way to insert web in card rolls. He explained that at his mill, they had been using a stick for this purpose, but that this method had resulted in frequent injury to the fingers of carders.

In reply, another member suggested that it might be wise to try the method used at his mill where cardboard sheets a yard or two long were used to lead the web through the rolls, thus avoiding the danger of nipped or crushed fingers.



Ever think of This, Mr. Spinning Overseer?

A section of the creel board on this and other spinning frames in the room of this southern cotton mill has been removed as shown here to reduce lint and slugs in yarn and lighten the cleaning burden. Sloughing off due to blast of air from the overhead blower hitting roving has been eliminated too.

This arrangement lets the draft pass from inside out and clean all the way to the floor. Lint accumulates on the floor so sweeper can take it up. Spinner's cleaning time is reduced, and there is less agitation of lint so that there is less fly in the atmosphere.

Before the creels were modified as illustrated in this close-up photo, it was necessary to blow-off the spinning frames every day; now once a week is sufficient.

What about roving storage? Oh! The spinner uses a special truck and carries her own with her.

Boss Weaver Reports on Warner & Swasey Weaving Machine. The dressers and weavers present heard Fred M. Wicks, overseer of weaving at Talbot Mills, North Bellerica, Mass., describe a year's experience with the Warner & Swasey Sulzer weaving machine. Mr. Wicks made these points:

It is extremely difficult for a weaver accustomed to conventional looms to learn how to use the Warner & Swasey machine. Aside from the fact that both weave cloth, there is no resemblance between the operating principles of the Warner & Swasey machine and a conventional loom. For this reason, the weaving overseer who is going to work with the W & S machine must be prepared to learn everything new.

In the case of Mr. Wicks, his education began with a trip to the Warner & Swasey plant in Cleveland where he studied the operation of the machine under the instruction of company engineers. When he returned to the Talbot mill, 36 W & S machines were installed to replace 96 looms of the conventional type.

After the difficulties of working with an unfamiliar machine were mastered, Mr. Wicks said that the Warner & Swasey machine had these advantages: high speed—240 picks per minute; filling packages of three to five pounds on cones, eliminating waste customary when filling yarns are wound on bob-

. . . and there's ONLY ONE WAY to Prevent it.

If your present skein dyeing equipment results in snarled yarn or broken filaments, you are incurring needless extra cost and time in back-winding. There is one sure way to end this waste and *only* one . . . install the SMITH-DRUM Type CSD Skein Dyeing Machine.

This is the machine that introduced the principle of "moving the liquor instead of the yarn." As a result, it entirely eliminates tangling or breaking of the yarn . . . leaving it in perfect condition for winding. It also dyes yarn more quickly and uniformly than other methods, resulting in savings of from 10% to 30%. If you dye filament rayon, nylon and other synthetic yarns or fine count cotton yarns in skein form, it will pay you to get the facts on this proven money-saving machine. Write . . .

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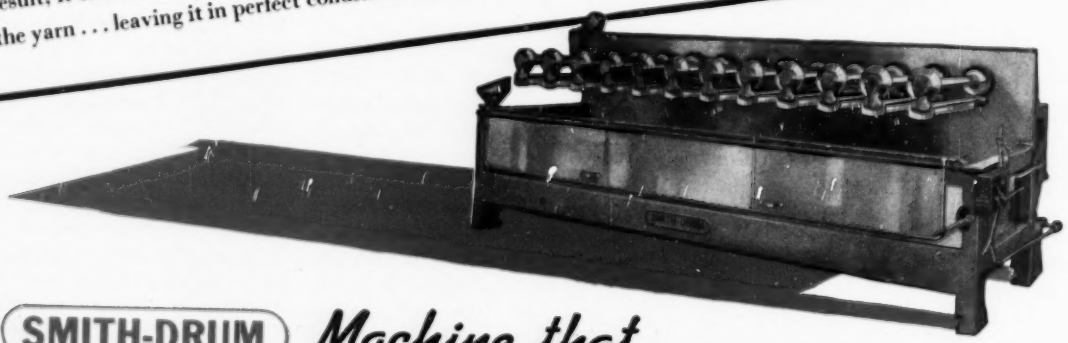


The SMITH-DRUM *Machine that Moves the Liquor Instead of the Yarn!*

bins; no need to prepare filling bobbins; no shuttles.

The machine makes good quality cloth, Mr. Wicks stated, but is limited to one kind of filling and eight harnesses with a six-pick repeat.

Variable Speed Control and Brake for Dressing Frames. Robert J. Dube of the Sjostrom Machine Company, Lawrence, Mass., summed up the features of the Sjostrom Vari-Speed control and brake for dressing frames as follows:

The unit is designed to be compact so that it can be bolted on dressing frames and provide a variable speed. It uses conventional pulleys with a reduction unit equipped with a worm and worm gear at right angles to the variable V-pulleys.

The unit is compact, extending from the side of the dressing frame by about 12 inches. It is equipped with an adjustable brake which can be set to stop the reel in any desired position. The unit has a three to one ratio of speeds and is usually set from 50 to 150 yards a minute.

Wool Tariff Situation. Gordon Graham, public relations adviser of the National Association of Wool Manufacturers, called for an end of reciprocal trade agreements affecting wool fabric imports.

The tariff reductions caused by these agreements have inflicted serious damage, he declared, on the already ailing United States wool and worsted manufacturing industry. The domestic wool cloth industry, he said, needs a tariff that will enable it to compete on equal terms with foreign mills in the American market.

As a result of reciprocal trade agreements, he pointed out, the ad valorem rate on wool cloth has been cut about 50 per cent under prewar rates. These cuts have stimulated a steadily rising increase in wool cloth shipments into the United States. These increased imports are reaching the American market against a background of continuing depression in the American woolen and worsted industry, Mr. Graham reminded the audience.

Having Trouble Sewing Supported Plastic Outerwear?

Feeding problems which may be encountered in the sewing of supported plastic films result from the adhesion of the plastic to the bottom of the presser foot. In mild cases of pucker, reduction of pressure on the foot may help, or a hinged presser foot may be tried, but these measures will generally not be effective.

The problem should be eliminated by covering the surfaces of film which are to be sewed with talcum powder or a lubricant. Both methods are, however, objectionable for obvious reasons.

If use of a lubricant is preferred, it is suggested that water (with a rust inhibitor added) be used. A felt pad wiper fastened to the front of the presser foot can be devised by the plant mechanic to automatically apply the lubricant which can be fed to it from a reservoir equipped with a flow regulator.

The most effective method however, and in the long run the least expensive method of overcoming the problem of improper feeding, is to use a compound feed machine with alternating pressers.

Seam Strength Problems. It may be necessary to use stay buttons or some similar support in button sewing. Another point to watch is pocket corners — the usual back tacking may result in too much material damage. A right triangle tack of the type found on pocket corners of men's shirts is probably stronger.

The use of gimp buttonholes with a taper bar should be considered. Belt loops are also subject to strain and should be stitched through twice when inserted in the side seam, but the two rows of stitching should be as far apart as possible or else the loop may be weakened rather than strengthened.

General rules to remember are: (1) At points of apparent weakness, some supporting medium — tape, stay button, etc. — should be sewed into the seam in such a manner that the support will carry the load on the seam. (2) Where multiple rows of stitching must be used, the rows should not be so close together that they weaken rather than strengthen the seam.

Mills are invited to make use of the Singer Seam Research Laboratories for solution to their seam strength problems.

Abstract of remarks of Henry Wedemeyer, sales manager, Singer Sewing Machine Co., Manufacturing Trade Dept., at the National Outerwear & Sportswear Association 1953 convention, Waldorf-Astoria Hotel, New York City.

127 Wool Mills Out of Business Since 1949. Records kept by the National Association of Wool Manufacturers, he noted, show that 127 wool textile plants in the United States have gone out of business since Jan. 1, 1949, affecting nearly 750,000 spindles, more than 8,000 looms, and some 47,000 workers.

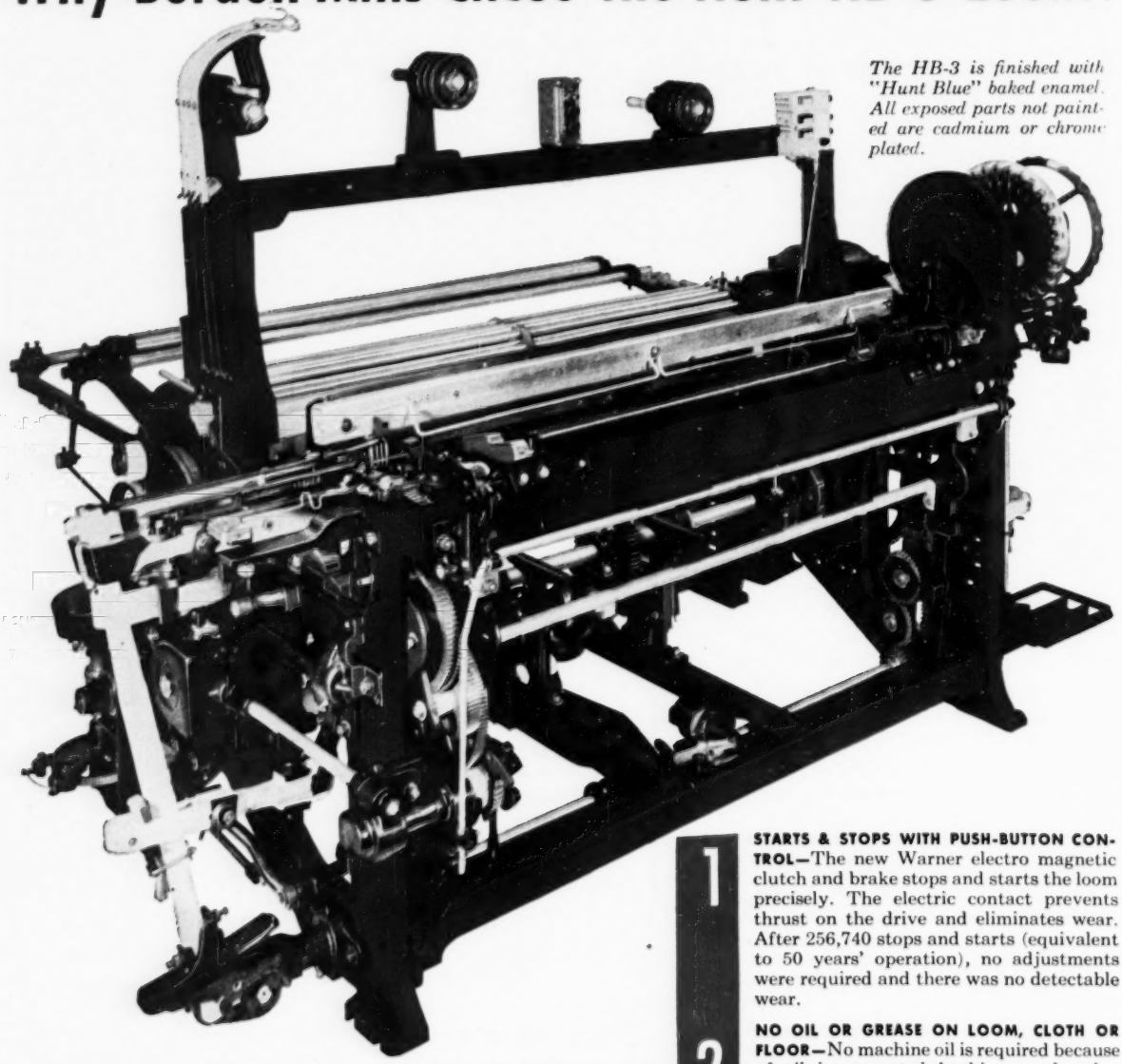
New Officers Elected. The new president of the association elected at the convention is William F. Neumann, superintendent of yarn manufacturing, A. & M. Karagheusian, Inc., Roselle Park, N. J. He succeeds Francis D. Herbert, Aldon Spinning Mills, Talcottville, N. J.

The following additional officers were elected: George S. Pickett, formerly overseer of dyeing, Dunn Woolen Company, Martinsburg, W. Va., first vice-president; Edward L. Kelton, Dole Yarn Company, Franklin, N. H., second vice-president; Emil Tegtmeier, A. D. Juilliard & Company, Stottville, N. Y., third vice-president.

James J. Burns, superintendent of finishing, Livingston Worsted Mills, Holyoke, Mass., was re-elected secretary, a post he has held for the past 21 years. Manuel Silva, superintendent of finishing, Hayward-Schuster Woolen Mills, East Douglas, Mass., was re-elected assistant secretary.

Fred J. Liebold, formerly with M. T. Stevens & Sons Company, North Andover, Mass., was re-elected treasurer, while Sullivan Gillette, overseer of carding, Talbot Mills, North Bellerica, Mass., was re-elected assistant treasurer. Raymond T. Bourey, formerly with Matson Mill, Inc., South Glastonbury, Conn., was elected for a three-year term as trustee.

Why Borden Mills Chose the Hunt HB-3 Loom!



The HB-3 is finished with "Hunt Blue" baked enamel. All exposed parts not painted are cadmium or chrome plated.

The new HB-3 Loom, conceived and developed by Borden Mills and Hunt Loom & Machine Works, Inc., has 4 main features that are the main reasons why Borden picked the Hunt HB-3.

1 **STARTS & STOPS WITH PUSH-BUTTON CONTROL**—The new Warner electro magnetic clutch and brake stops and starts the loom precisely. The electric contact prevents thrust on the drive and eliminates wear. After 256,740 stops and starts (equivalent to 50 years' operation), no adjustments were required and there was no detectable wear.

2 **NO OIL OR GREASE ON LOOM, CLOTH OR FLOOR**—No machine oil is required because of oil impregnated bushings and nylon gears against metal gears. Sealed bearings require only a once-a-year greasing. Results are reduced seconds, because of no grease on cloth, in addition to time saving from oiling and greasing loom.

3 **70% LESS REPLACEMENT PARTS**—There are 55 less parts on the HB-3 Loom than on other standard models. This fact, plus the reduced wear from nylon gears against metal gears, reduce replacement parts by 70%.

4 **EASE AND COMFORT FOR EMPLOYEES**—The weaver's physical labor is lowered because of push-button control. The proper humidity pulled through the warp yarn into a floor duct practically eliminates lint and dirt, making the weave room as clean and healthy as the most modern office.

Write, wire or telephone Hunt today for more details on the new Hunt HB-3 loom.

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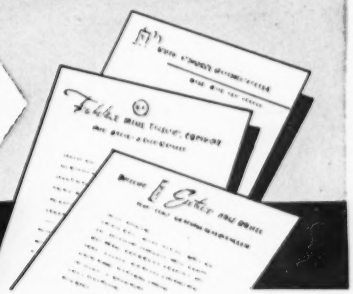

Contest Winner!

Winner of a recent TI Kink Contest was J. H. Boddie of Alabama.

Mr. Boddie's winning entry was a way to remove sprocket shafts on cards.

Another Kink Contest is now underway. See announcement on this page, and send your entry today.

Check Proposed Auxiliary Dryers for Efficiency

EDITOR TEXTILE INDUSTRIES:

Undoubtedly, infra-red electric lamps are valuable for many purposes and are suitable for drying where a limited amount of heat is required in an area of moderate size.

On page 189 of the September issue of TEXTILE INDUSTRIES under the caption "Increase Your Slasher Drying Capacity With Heat Lamps," CONTRIBUTOR No. 8595 indicates that ten 250-watt lamps utilized in connection with a slasher will accomplish a considerable amount of drying. Ordinary drying involves the evaporation of water or other liquid. A considerable amount of heat is required to evaporate any appreciable amount of water, and a few heat lamps cannot accomplish a lot of drying.

Radiant gas burners have been used to some extent for this purpose, and a typical installation would include two 63" burners located in the same place as the lamps referred to by CONTRIBUTOR No. 8595. However, each of these two burners has a rating of 7,000 Btu per hour per inch of burner length, or 441,000 Btu per burner, making a total of 882,000 Btu.

Experience has shown that installations of radiant gas burners will give a substantial increase in drying, but the heat is not so great that a fraction of it could be expected to give satisfactory results. CONTRIBUTOR No. 8595, in suggesting the use of ten 250-watt heat lamps, has apparently shifted his decimal point. The hand books indicate that one kilowatt is equivalent to 3,414 Btu. He proposes the use of ten 250-watt lamps or a total of 2½ kilowatts; therefore, the resultant heat is about 8,535 Btu instead of 84,000 as he states. On the basis of 60% efficiency he will actually utilize about 5,121 Btu.

There is no great difference between the efficiency of radiant gas burners and heat lamps. Under practical operating conditions gas burners with a capacity of 882,000 Btu are used successfully, but it seems to be stretching the point a bit to assume that about 1/100th of that capacity could show any worthwhile results. On the basis of 60% efficiency, as indicated in the article, 8,535 Btu would have a total evaporation capacity so insignificant that it could not be measured in terms of increased machine speed.

If a sufficient number of lamps were used to approach the capacity of the gas burners mentioned, the space required would be well be-

NEW KINK CONTEST!

$100 will be awarded the winner.

Send your entry now! This contest ends March 15, 1954.

Every kink, short-cut, time-saver, or quality improvement suggestion entered in the contest will be paid for immediately upon acceptance. The $100 award will be made as soon as all entries are judged.

The contest rules are simple:

► All contributions must be postmarked not later than midnight, March 15, 1954.

► No limit to the number of entries an individual may submit in any one contest.

► All entries paid for upon acceptance — no waiting. Extra payment for photographs that are usable. Extra consideration is also given kinks accompanied by legible pencil sketches or drawings.

► Entries must not have been published previously.

Send your contest entry to: Editor TEXTILE INDUSTRIES, 806 Peachtree St., N. E., Atlanta 5, Georgia.

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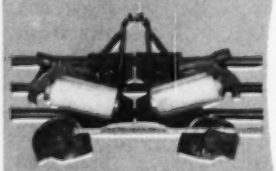
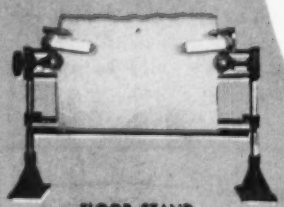
See Our Money Saving Devices at Booths 370 & 371, A.T.M.A. Exhibition April 26-30.

TEXTILE MACHINERY EXHIBITION — ATLANTIC CITY — APRIL 26-30 1954 — AMERICAN ASSOCIATION

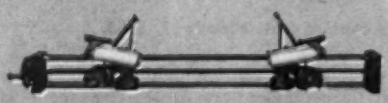
GUIDER HEAD



NARROW FABRICS GUIDING

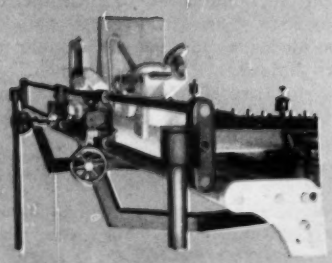


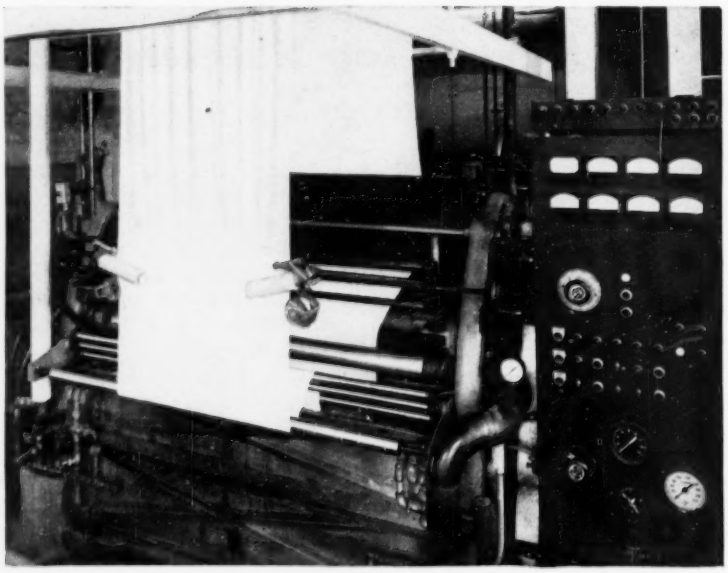
FLOOR STAND



BRACKET STAND

TENTER STAND CLIP TYPE, OR PIN TYPE WITHOUT ELECTRIC FEEDERS





(Illustration shows Mount Hope Precision Guiders guiding cloth into the new Vapojet Dryer at the Cliffside Dyeing Corporation, Paterson, N. J.)

NOTE Smoothness of material as it leaves "Precision Guider" heads — which maintain accurate alignment, and insure smooth wrinkle free feeding.

If you have not yet seen the gentle, positive, purely mechanical operation of Mount Hope Precision Guiders, have a Mount Hope Representative arrange a demonstration at your convenience — no obligation!

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yond any practical limits, not to mention the cost of operating the lamps.

Some of your readers may be misled unless they are cautioned to check carefully any proposed installation of auxiliary dryers on slashers or elsewhere.

G. R. VAN KAMPEN
Red-Ray Mfg. Co., Inc.

Do You Need a Fringe Roll?

EDITOR TEXTILE INDUSTRIES:

The question still remains, is the fringe roll beneficial and does it serve the purpose for which it was intended? A fringe roll is a wire wound roll that is installed just under the bottom feed roll of a picker. The purpose is to give the under layer of the lap proper and uniform distribution and also to aid in picking or cleaning. We have five pickers.

We bought one fringe roll, and it was installed for experimental purposes. By experimenting with the lap meter, waste tests, and evenness tests, we find the following in favor of the fringe roll:

	With Fringe Roll	Without Fringe Roll
Lap Evenness (within tolerances)	91.17%	93.05 %
Visible Waste		
Picker motes	.919%	1.187%
Card flat strips	2.964	2.805
Cyl. and doffer strips	.258	.571
Card motes and fly	1.611	1.716
Total Waste	5.752%	6.279%
Nep count—per 100 sq in.	10.85	11.62
Card sliver evenness	12.30%	13.96%
Drawing sliver evenness	19.06%	19.67%
Breaking strength 30s yarn	66.3	61.2

The nep count seems to be the answer in that it is slightly less with a fringe roll. This discounts the theory that if less waste is removed, more neps and unevenness will result. We found with a fringe roll that less good fiber was being removed as is shown in the waste test. The real benefit was found in the yarn strength where the fibers were more uniform and parallel and a better uniformity in twist was obtained.

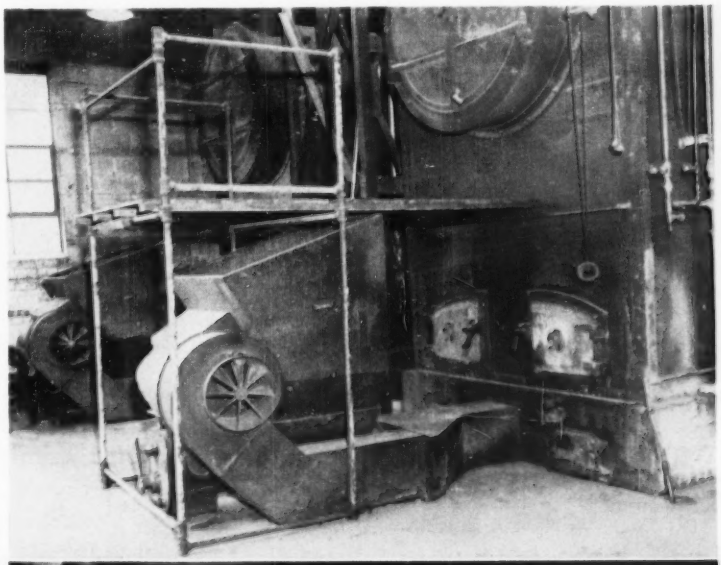
CONTRIBUTOR No. 8618

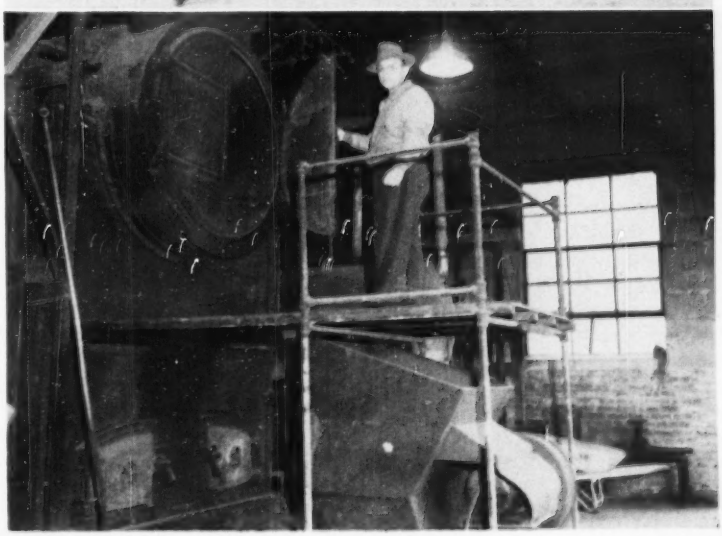
Movable Platform Aids in Cleaning Boiler Tubes

EDITOR TEXTILE INDUSTRIES:

There are various devices for cleaning boiler tubes. These include chemical soot removers and steam activated soot blowers, but no device is equal to an efficient soot swab operated by hand. When soot blowers or removers and swabs are used in combination and properly applied, good economy in boiler operation can be obtained. However, swabbing boiler

PLATFORM is pushed in place (top photo) over the stoker preparatory to cleaning boiler. Operator mounts platform (lower photo) by means of a small ladder and is in position to clean the boiler.





tubes is usually a difficult job because the operator does not have suitable footing while doing the swabbing. Here is how we solved the problem of adequate footing:

We constructed a movable platform (see accompanying illustrations) from scrap 1" pipe and tees. The metal framework is 56 inches wide, 35 inches from front post to back post, 60 inches from floor to wooden platform, and has a rise of 30 inches for guardrail. A piece of 2" x 2" angle iron is bolted across the front of each boiler to support the front of the wooden platform.

When it is time to swab the flues or clean the breeching, the entire assembly is pushed forward over the stoker (see illustration). The operator then mounts to the wooden walkway by means of a small ladder and proceeds to perform whatever maintenance work is necessary. One man can easily move the platform from one boiler to another by sliding it over the concrete floor, and it is far more substantial than standing on a ladder, which is the usual practice.

The idea is applicable to most any type of boiler, but the dimensions of the framework should conform to the specific requirements. If used fittings are not available, the framework can be more economically constructed by welding. However, the utility of the movable platform far outweighs its small cost.

CONTRIBUTOR No. 8624

Waste Sorting Table Saves Time

EDITOR TEXTILE INDUSTRIES:

We have a spinning department of 40,000 spindles spinning a range of counts from 20s to 40s. Previously there was one man per shift fully employed, separating, collecting, and transporting the waste to the appropriate departments for reworking or sale.

The spinners have a three-compartment box at the end of each frame. It is part of the spinner's duty to keep the different kinds of waste separated. For example:

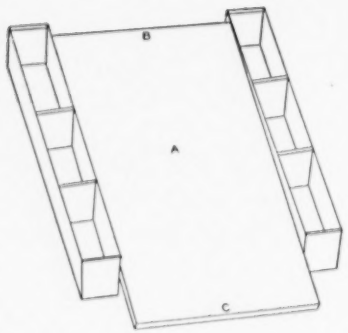
(a) Roving waste when creeling

(b) Hand waste made when "piecing up"

(c) Soft waste collected from the clearers.

Unfortunately, the waste man had to spend a large portion of his time checking each box and making the necessary corrections while he stood at the end of the frames with his collecting truck. It took four hours to go around the department; therefore he made two tours per shift.

To facilitate separation of the waste, a waste sorting table was made at a cost of $30.00. The essential features of this table are shown in the accompanying sketch. The table has a smooth black top (A), thirty inches wide and four feet long. Edge (C) is about three inches longer than edge (B). Edge (C) is just high enough from the floor to allow a waste truck



to be pushed underneath. On each side of the table there is a trough divided into three compartments.

Now the waste man goes around the department in half an hour collecting waste as separated by the spinners. He just dumps it into his truck which is divided into three compartments similar to the spinners waste boxes. At the table each kind of waste is treated by being put on side (B) with the appropriate waste truck under side (C).

Misplaced material is easily and quickly taken out as the waste is spread over the table. A sweep of the hand puts the right waste into the truck; the picked out waste is deposited into one of the compartments at the side.

The whole operation which formerly required four hours is now done in one hour. Thus, the expenditure of $30.00 and the time spent on training the operator in a slightly different routine saves us more than $3,000 per year.

CONTRIBUTOR No. 8625

Loom Settings for Print Cloth

Subject Briefed: *Do mills on standard print cloths which change from both the feeler and the fork make the lizard crawl when the loom fails to change? That is, do they set the filling motion trip to let back one pick when the loom fails to change until it has let back three times, and if it still hasn't changed to stop?*

What is the average number of looms assigned to weavers on 80 x 80 print cloth? We have 44" Model E Draper looms, making 45" cloth and have assigned 72 looms per weaver. Is that number unreasonable? (CONTRIBUTOR No. 8569, *December*, 1953).

EDITOR TEXTILE INDUSTRIES:

On print cloth and industrial

your carriage trade cottons and rayons deserve the *Amanthrenes

When better grade cottons and rayons deserve color at its best, be sure of extra quality and fastness by specifying time-tested, market-proved AMANTHRENE* (Vat) Colors. This range of superior vat colors provides gilt-edge assurance of all-round fastness to washing, chlorine or peroxide bleaching and soda boiling.

Especially suited to the printing and dyeing of cottons and rayons, a complete range of AMANTHRENES is available in paste and powder forms. You'll find them ideal for printing fine dress goods, draperies and slip cover fabrics. Extreme dispersion insures excellent results in dyeing cotton and rayon fibres in any machine.

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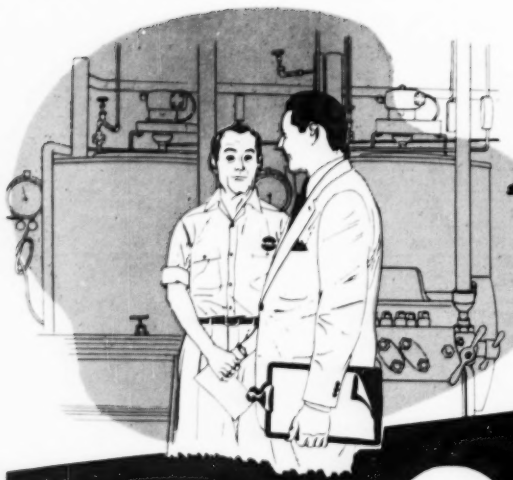

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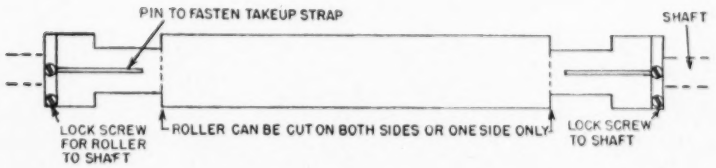
sheetings we run our looms on single change. In years past when we did have some looms changing from both fork and feeler we did not make the lizard crawl. The loom kept changing filling until the filling started weaving.

Our assignment would be about 64 looms. However, the stops per loom hour would be the determining factor. A weaver cannot start up over 60 stops per hour and make good work.

CONTRIBUTOR No. 8574

Takeup Roller for Kalio 51 and 60 Gauge F-F Machines

This item was submitted in a Kink Contest.


PIN TO FASTEN TAKEUP STRAP
SHAFT
LOCK SCREW FOR ROLLER TO SHAFT
ROLLER CAN BE CUT ON BOTH SIDES OR ONE SIDE ONLY
LOCK SCREW TO SHAFT

EDITOR TEXTILE INDUSTRIES:

On full-fashioned knitting machines, takeup straps have to be uniform in order to make a straight stocking. Uniform straps also help to prevent menders and "hookups." Oftentimes when old straps are replaced the new ones are not uniform in length.

We have adopted the kink shown in the accompanying illustration to permit quick adjustments to compensate for the difference in length of the straps. The roll can be adjusted to make the straps even. Quite a bit of time is saved by this method as compared to the time required by the old method. By the "old method" I mean making the straps even by ripping and sewing them.

CONTRIBUTOR No. 8598

Tips on Weaving Sateen

EDITOR TEXTILE INDUSTRIES:

In the August 1953 issue CONTRIBUTOR No. 8581 inquired about trouble in weaving sateen.

Anyone weaving heavy sateen will always have more or less trouble if direct pull-down springs are used. The reason for this is that any spring action on the harnesses works exactly opposite from ideal weaving condition. Thus the springs assert their greatest tension when the harnesses are raised by the dobby, and when the harnesses are lowered the tension of the springs diminishes.

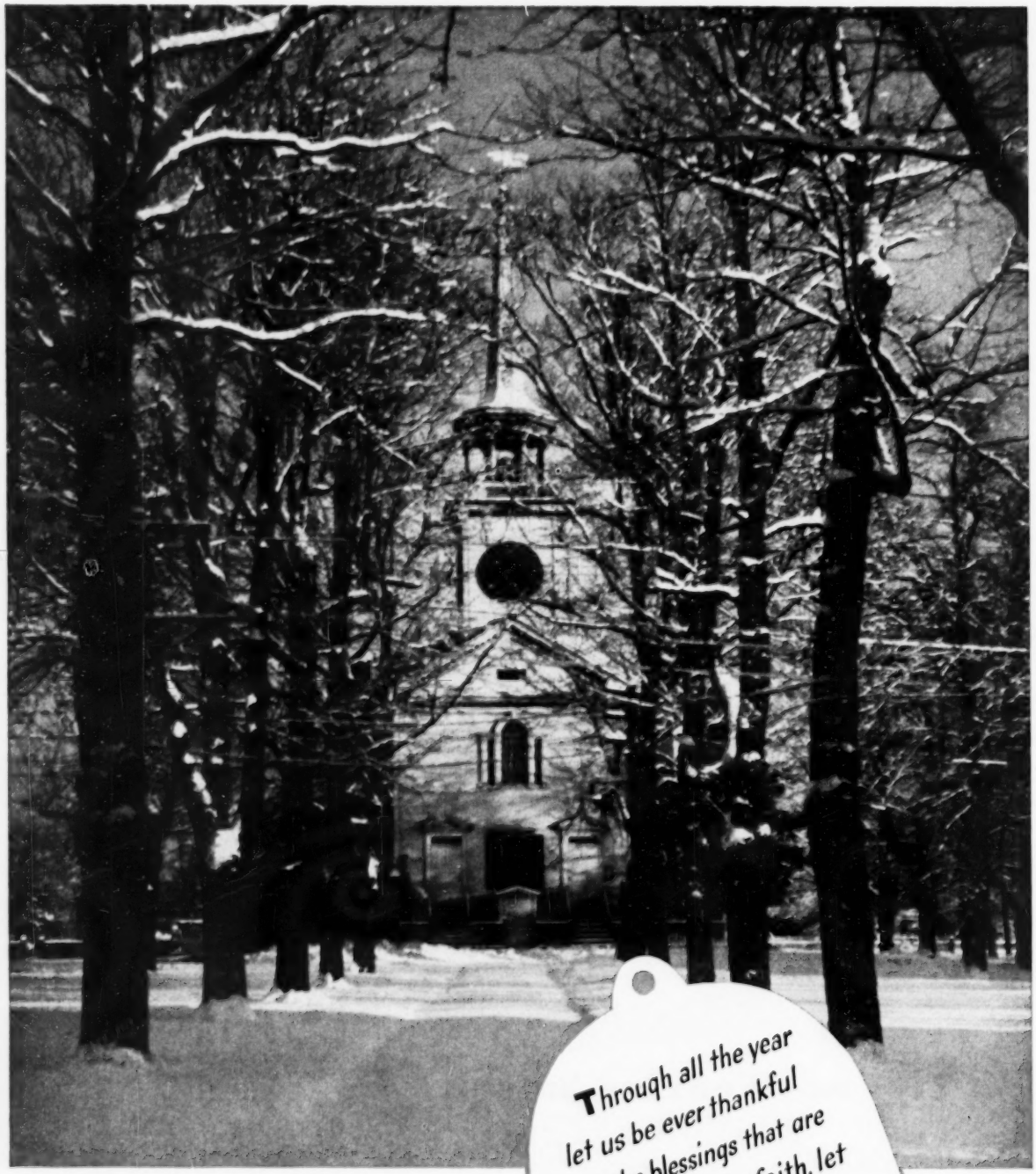
The ideal weaving condition would be to have the springs under their greatest tension when the harnesses are down and at the lowest tension when the harnesses are up. Then the springs would not resist raising the harnesses and thus greatly facilitate the operation of the harnesses by the dobby. However, such an ideal condition cannot be obtained since it is against the working law of mechanics. We, therefore, will have to work out of it the best way we know.

I presume that CONTRIBUTOR No. 8581 weaves a heavy sateen on a medium width loom. Light sateen on narrow loom would not give much trouble. I also presume that the fabric is a warp sateen. A filling sateen would always be run with 1 up and 4 down. Even on a warp sateen it is sometimes advantageous to run it 1 up and 4 down even though this would be weaving it face down. Weaving any fabric face down has the disadvantage that imperfections are not so readily detected and closer inspection is therefore necessary. Nevertheless, it is sometimes preferable to weave a dobby sateen face down. With cams in conjunction with spring tops the exact opposite is true.

Since CONTRIBUTOR No. 8581 has dobbies for his sateen weaves we must arrange it so that the dobbies will be subjected to the least possible strain. The best way to do this would be to employ spring jack motions instead of direct pull down springs. These spring jack motions come in several types, individual or dual, and can be purchased from the loom builders.

The spring jack motions reduce considerably the strain on the dobby, straps, and harnesses. Thus, for instance, on spring jack motion a spring stretched to 6 inches extends to 6½ inches only at a harness lift of 5 inches. Direct pull-down springs stretched to 17 inches will extend to 22 inches at a 5-inch harness lift. Spring jack motions exert 48% of the resistance exerted by direct pull down springs when the harnesses are in top shed position.

If the heddle frame members are of a proper dimension, the reduced strain from a spring jack motion would permit the heddle to slide freely on the heddle rod, which is essential for good weaving condition. The purchase of spring jack motion is a good investment for dobby looms. It is worthwhile to emphasize the importance of keeping the spring jack motion well lubricated at all



Through all the year
let us be ever thankful
for the blessings that are
ours. Strong in faith, let
us be zealous in our
determination to maintain
the freedoms and privileges we enjoy.

HOWARD BROS. MFG. CO. WORCESTER, MASS.

Harry C. Bixley
President

times. Otherwise, due to the strain from the springs, it will wear out rapidly. Use light grease for lubrication as falling lint will quickly dry up oil and cause excessive wear on the entire spring jack motion.

When spring jack motions are not available, it is important to arrange the direct pull-down springs so that they will cause the least amount of trouble. Since the diameter of the pull-down springs is usually greater than the gauge of the dobby, they must be applied in staggered order on the harnesses. If the springs are permitted to rub together, the full force of the springs is not applied and additional tension is required. The springs should have freedom to exert their full force.

To prevent the springs from rubbing against and scoring the heddle frames, a leather strap should be attached to the upper end. This leather strap must be a little longer than the lift of the harnesses so that the springs will not go up between the heddle frames. On wide looms it is sometimes necessary to apply an extra set of pull-down springs in the center of the heddle frames.

The spring loading of the heddle frames can be reduced by a low warp line. Hence, the warp stop motion and whip roll should be set as low as the weaving condition will permit.

IVAR O. MOBERG

Make This Change on Spinning Mules to Reduce Downtime

This item was submitted in a kink contest.

EDITOR TEXTILE INDUSTRIES:

On spinning mules there are several studs and split pins as shown in the accompanying Fig. 1. These studs and split pins (cotter keys) are used in such places as on the end of the long lever, the connecting rod from the long lever to the escape lever, the connecting rods between the drawing up friction and the holding out catch, and numerous other places.

Many mule breakdowns are caused by the friction and pressure against the split pin shearing the pin and allowing the stud to slip out of position, thus disconnecting the two parts. It was not uncommon to be called to a mule which had made a "sawney" (all ends broken), and with a broken hold out catch bracket because one of the studs had come out of position. Hundreds of hours of lost time were attributed to escape levers or cam shafts not changing for the same reason. Our plant of about 250,000 mule spindles kept one man busy repairing broken brackets caused by these pins shearing off until we found the answer to the problem. We solved the problem by using bolts and nuts as shown in the accompanying Fig. 2.

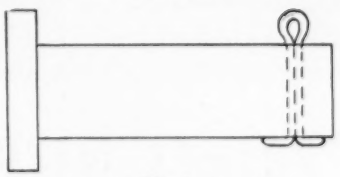


Fig. 1.

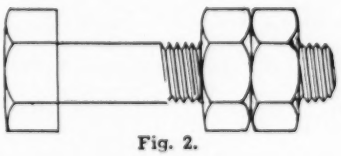


Fig. 2.

Instead of the ordinary round head pin or stud originally installed, we used bolts and lock nuts. The space we had available was restricted; therefore the bolt heads are only half the usual thickness, and the lock nuts too are thin. There was some difficulty in getting these specially designed studs into position. We have been repaid for the trouble many times—breakdowns are now a rarity, and the welder has been transferred to other work. The overseers have much more time to spend on supervision and we do not have the lost production formerly recorded.

CONTRIBUTOR No. 8546

Standby Sliver for Broken Ends on Cotton Combs

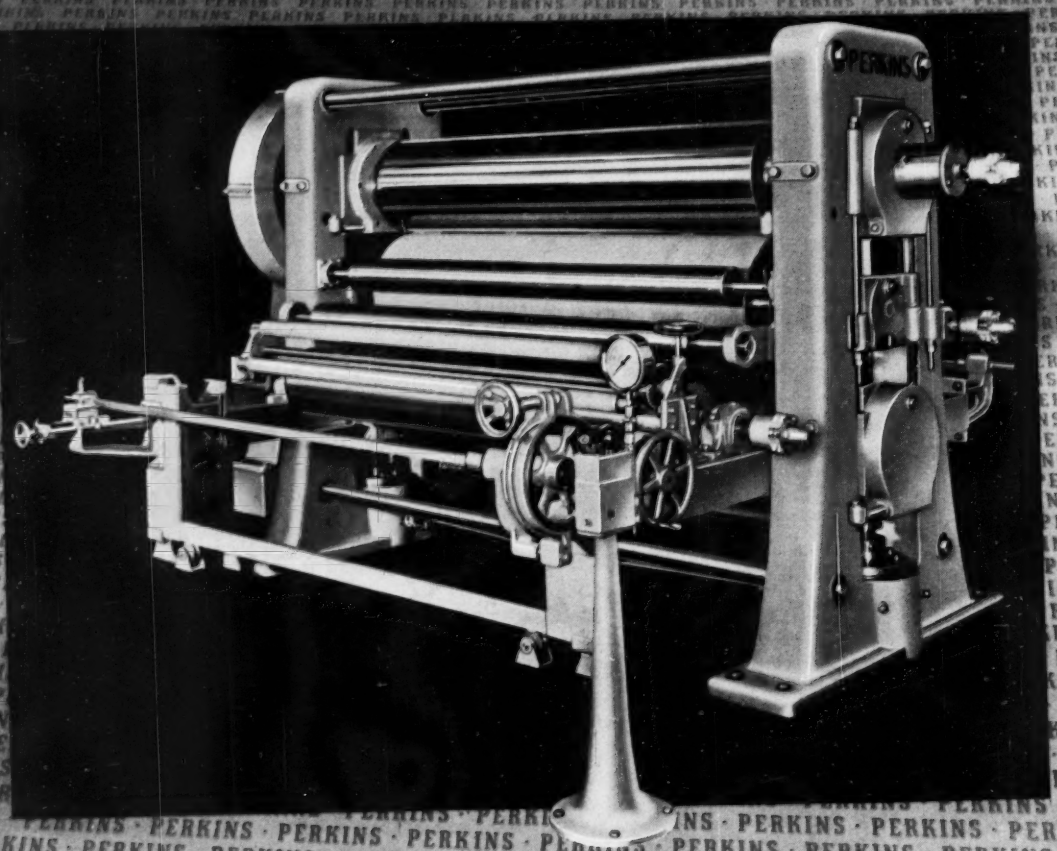
EDITOR TEXTILE INDUSTRIES:

We have a number of cotton combers processing Egyptian cotton to make 92s to 120s yarn. We were satisfied with the operation of these machines but irregularities were produced when an end broke on the table before the stock reached the draw box. Every time something went wrong with one head of the machine and an end broke, we had five strands of sliver entering the draw box instead of one.

This difficulty was incompatible in that we were trying to spin such fine yarns as uniformly as possible, although we realized subsequent drawing would improve uniformity to some extent. We gave each comb tender a full can of combed sliver to replace broken ends. These cans got in the tenders' way and were very unpopular.

To alleviate the difficulty, we made some short cans which would fit under the end of the table on the opposite end from the draw box. Then the sliver was inserted through a hole drilled in the table. A trumpet was fitted to the hole in the table, and the trumpet was drilled to allow the sliver to pass through easily, but the hole was sufficiently small to prevent the sliver from falling back into the can. Now we always have six strands of sliver presented to the draw box. When an end breaks, the tender has a convenient source of sliver to fill in the gap. The operatives like the new arrangement.

CONTRIBUTOR No. 8547



PERKINS POINTS WITH PRIDE

to this modern three-roll 83" face 60-ton Hydraulic Rolling Calender. Top and bottom rolls, chilled iron. Intermediate roll, cotton. This high production calender is equipped with variable speed drive, pre-heating drum, cooling drum, three-bar tension group and a let-off which is adjustable laterally and horizontally.

B. F. PERKINS & SON, Inc.

HOLYOKE, MASS., U.S.A.

LARGEST MANUFACTURERS OF CALENDER ROLLS IN THE WORLD

Easy Way to Remove Valve Seat Bushings

EDITOR TEXTILE INDUSTRIES:

We recently had to replace the valve seat bushings in several of the Klipfel steam regulators in use in our preboarding room. The seat for the ball (see accompanying illustrations) will eventually become pitted and allow steam to escape into the preboarding machine when it is unwanted. This causes temperature variations and unevenness when the hosiery lot is dyed. It is then necessary to replace the seat bushing to prevent this trouble.

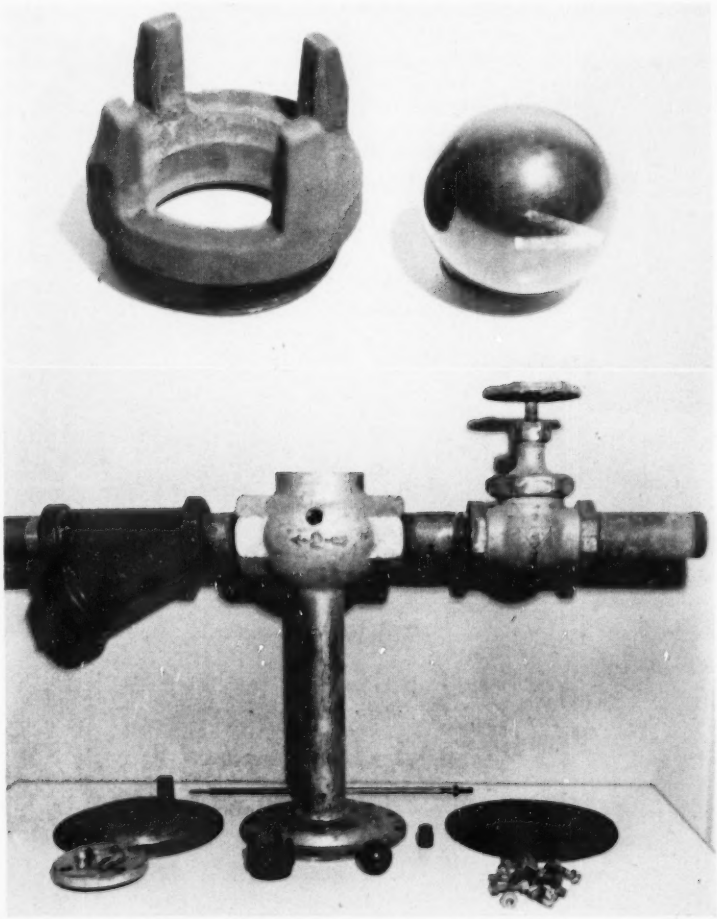
Removing the seat bushing is a difficult job and requires a special crow-foot tool under ordinary conditions. However, there are occasions when the tool will fail to unscrew the bushing, even when pounded upon with a heavy hammer. In one instance we worked fully two hours trying to remove a bushing with the crow-foot tool, but without success even though we tried preheating the valve body.

Finally, I conceived the idea of drilling the valve body above the seat and tapping with a ½-inch pipe tap. I then inserted a short length of ½-inch rod in the hole and rested it against one of the lugs on the seat bushing; after striking the rod two sharp blows with a hammer, I was enabled to unscrew the seat with my fingers.

The position of the ½-inch hole tapped for a pipe plug of the same size is shown in an accompanying illustration. The plug, which is shown at the base of the regulator, prevents any leakage when the job is completed. There are no disadvantages to this method of renewing valve seats, and the idea can be applied to most types of valves having renewable seat bushings.

CONTRIBUTOR NO. 8622

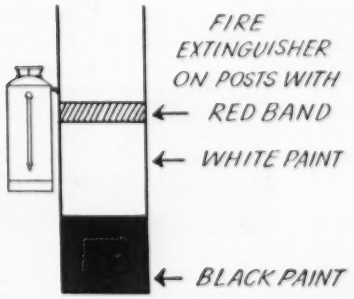
RENEWABLE VALVE SEAT bushing and ball (upper photo). Lower photo shows the position of the ½-inch hole tapped for a pipe plug of the same size.



Mark Locations of Fire Extinguishers

One large mill has posts painted black from the floor to the five-foot level, and white from there to the ceiling. Fire buckets and fire extinguishers are mounted on the posts, and it is difficult to determine the location of the fire fighting equipment if the individual is standing on the opposite side of the posts.

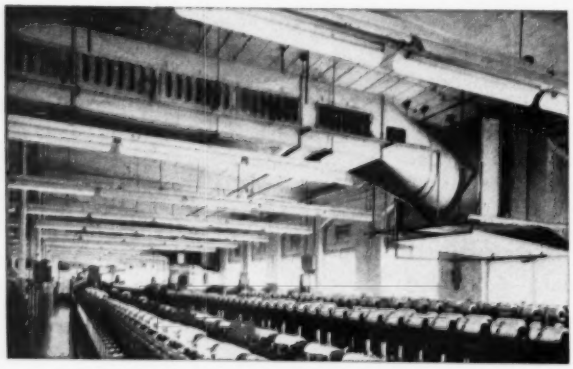
The management decided to remedy this situation to save precious time and prevent delay in the event of a fire. A red band was painted on each post where a fire bucket or fire extinguisher is mounted, and now the equipment can be quickly spotted.



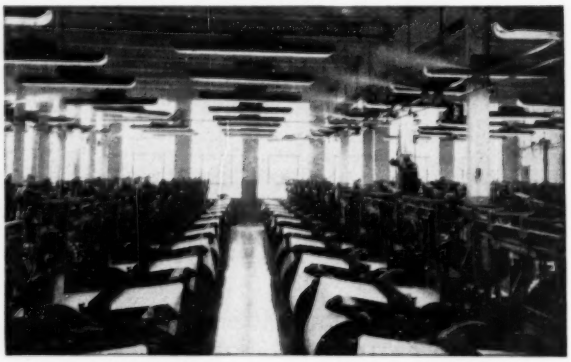
Parks-Cramer

CERTIFIED CLIMATE

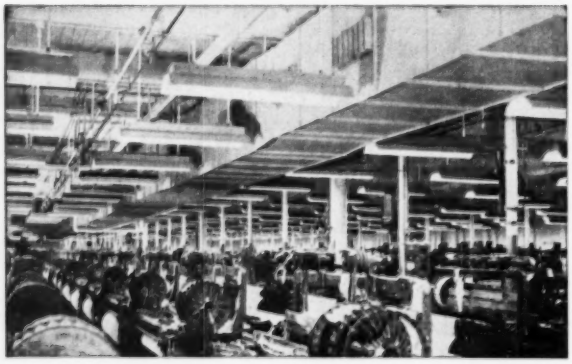
YOU know the value of closely controlled atmospheric conditions in the textile mill. OUR object is to design the best possible air conditioning apparatus and to recommend the system most suited to your requirements.



Automatic Airchanger—unit or central type.



Gradumatic Humidification.

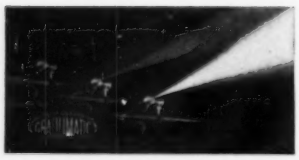


Air Washer System—central station or ceiling type—straight or in combination with direct humidification or refrigeration.

Each system flexible and of dependable capacity.

All with Gradual Acting Psychrostat Regulation.

Engineering, manufacturing, installing by Parks-Cramer.
Complete new installations. Modernizing of existing systems.
Centralized responsibility.
Textile mill humidification and air conditioning since 1906.



Parks-Cramer Company

FITCHBURG, MASS. CHARLOTTE, N. C.

Device for Fly Frames

(Continued from page 85)

patented spinning method" for fly frames—is attached to existing flyers to provide:

An increased regularity (1) of the roving of 5-10%, (2) of the count spun over the whole length of the bobbin of 20%, (3) of the count spun on the front and back row of bobbins;

An increase (1) of production up to 15%, (2) of weight of bobbins up to 8%, (3) of the spindle assignment up to 30%, (4) of the spinning percentage of the raw material up to 5%, (5) of spindle speed up to 5%;

A reduction of (1) the doffing of 6 to 10%, (2) of the end breakage in spinning, (3) of the time required for creeling at spinning, and (4) of the loss for waste.

Rotafil gives the roving in the free zone between the nip of the front rollers and the flyer top an ideal twist making it 5-6 times stronger, yet does not increase the twist per inch in the roving on the bobbin.

Stellite American Corp., 60 East 42nd St., New York 17, N. Y.

For additional data, request item A-207, using Handy Return Card on page 184.

NEW Equipment AND MATERIALS

Other items are described on pages 81, 83, 85

Versatile Lab-Type Dyeing Machine

A new stainless steel laboratory dyeing machine, suitable for conventional as well as high temperature (above 212 F) dyeing, is equipped with a combination dye spindle suitable for the dyeing of packages wound on 1⅝" as well as ⅝" tubes, 1⅝" springs, Barber-Colman cheeses, cones, and raw stock.

Features of the unit include the following:

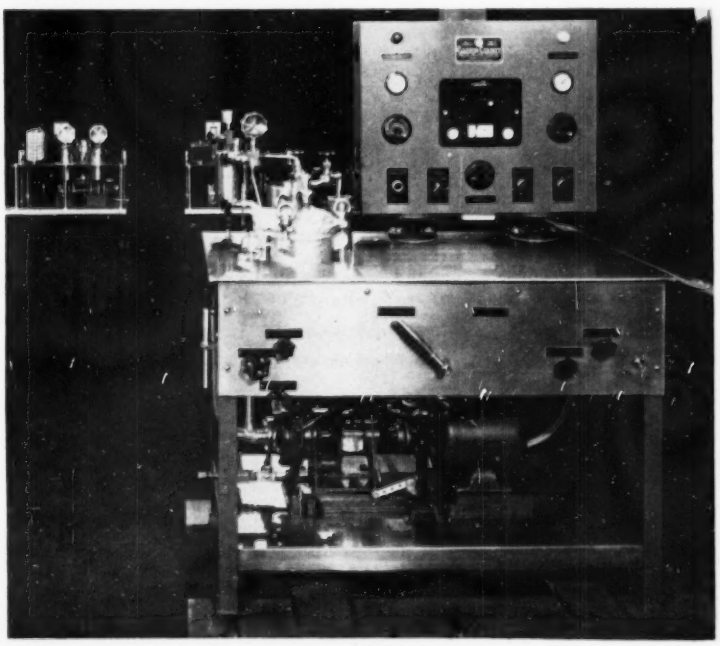
An add-dye tank permits adding while machine is operated above 212 F; visible top wash; flow of dye liquor can be controlled according to type of yarn being processed; kier is jacketed for indirect heating and cooling; yarn can be steamed both ways — inside-out and outside-in; automatic controls are provided for temperature, dye liquor flow reversal, process timing, heating and cooling.

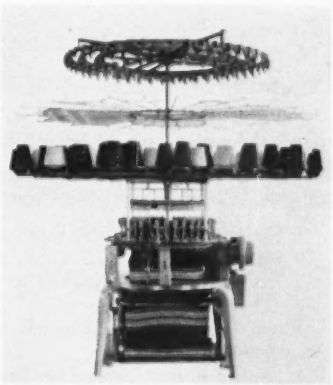
Machine is furnished complete so that all that is necessary is to bring steam, water, and electrical connections to it.

Gaston County Dyeing Machine Co., Stanley, N. C.

For additional data, request item A-116, using Handy Return Card on page 184.

Gaston County's laboratory dyeing machine on display during 1953 AATCC convention in Chicago.





Brinton Model MODERNA, Style R-STWY knitter.

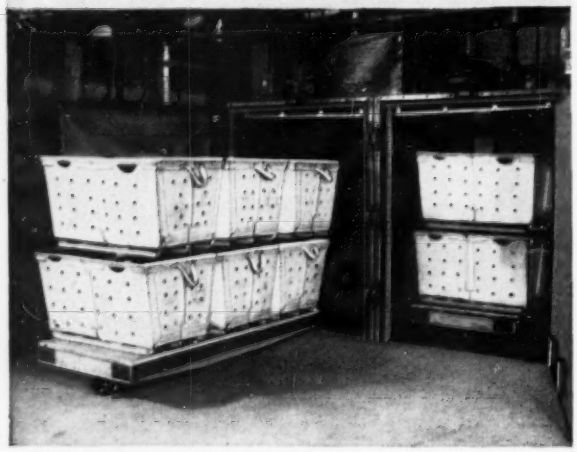
Fancy Sinker Top Knitter Has 32 Four-Color Yarn Changers

A fancy sinker top circular knitting machine incorporating 32 four-color yarn changers is equipped with individual shear and clamp units, controlled and operated automatically, either in conjunction with three-position design wheels on all feeds or separately, and combines at the same time tuck bars for plain knit, permitting unlimited automatic changes for any combinations of knit and tuck, knit and welt, welt and tuck and plain jersey.

Known as the Brinton Model MODERNA, Style R-STWY, it is designed on the revolving cylinder principle with stationary head and bobbin table, arranged for 128 bob-

for the best in CANVAS Steaming and Conditioning Baskets

LOOK FOR **Lane**



Designed especially for yarn conditioning, this economical Lane Style 34 Steaming and Conditioning Basket incorporates *all* these quality features for *long, dependable service at extremely low cost:*

- Special extra heavy Lane duck body for extra long wear.
- Light-weight, extra-strong, rust-resistant spring-steel frame with sturdy, hardwood bottom *double* riveted with non-rusting rivets.
- Rust-proof eyelets on all sides allow thorough efficient conditioning.
- Reinforced, rivet-fastened handles for safe moving.

STANDARD SIZES AVAILABLE

No.	Long	Wide	Deep
1½	18"	14"	12 "
2	22"	14"	14 "
2½	24"	15"	15 "
3	24"	18"	15½"
3½	24"	18"	18 "
4	30"	18"	16 "
4½	30"	18"	18½"
5	30"	18"	20½"
6	30"	20"	20½"
8	34"	22"	23 "
10	36"	24"	25 "
12	36"	26"	27½"

Lane canvas baskets, hampers, and trucks are *built to take it, built to last!* There are other canvas baskets, but there's only *one* Lane. *Always* look for the *Lane* mark—*to be sure!*
See your distributor or write . . .

Canvas Basket Craftsmen Since 1894

Lane THE LANE BASKET

W. T. Lane & Bros., Inc., Poughkeepsie, New York

Now . . .

A SPECIAL DOUBLE VALUE

How would you like to have in your organization an expert on all phases of textile operations whose salary was less than $2.00 a year? Impossible? No it isn't. For by putting TEXTILE INDUSTRIES on your payroll at precisely that "Salary" you will receive the benefits of textile experts in every branch of the industry.

But that's not all . . .

Remember, this is a DOUBLE value. If you act now, you can take advantage of a combination offer that brings you a copy of the new "Dyeing, Bleaching and Finishing Manual" in addition to the 3-year subscription to TEXTILE INDUSTRIES at a remarkably low rate.

This exclusive manual, consisting of 185 full-size pages, has been most thoroughly planned to put into your hands a wealth of material not available in one volume from any other source *at any price.* Here, recognized authorities in every branch of the industry join to aid you in all the most important phases of wet processing.

As a "package" offer—we will enter or renew your subscription to TEXTILE INDUSTRIES—*the* magazine of the textile industry—for 36 full issues; and, in addition, will send you the new "Dyeing, Bleaching and Finishing Manual" for only $5.00.

Don't put it off! Mail your order today.

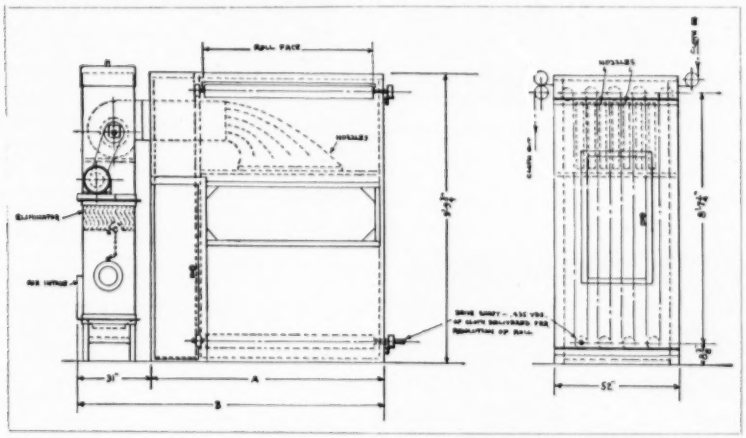
TEXTILE INDUSTRIES

806 Peachtree St., N.E. • Atlanta 5, Ga.

bins. Some of the most noticeable advantages are production—approximately 100% higher, as well as considerable increase in the patterning and striping possibilities; ease of set-up changes; and ease of maintenance. The machine is equipped with a positive electro-magnetic clutch, working in conjunction with the individual motor drive. Push-button controls are mounted on three columns, permitting the operator to jog the cylinder even as little as one needle at a time by power. A horizontal hand wheel surrounding the head of the machine permits the operator to move the cylinder from any position on the floor.

H. Brinton Co., Inc., Kensington Ave. and M St., Philadelphia 24, Pa.

For additional data, request item A-506, using Handy Return Card on page 184.



Cloth Cooling Unit for Resin-Treated Fabrics

An addition to the line of cloth wet finishing machinery for cotton and the newer fibers is the Hunter Temperdaire Cooling and Conditioning Machine for processing resin-treated fabrics.

After drying and curing, the fabric has attained a temperature of 300 plus degrees Fahrenheit. If it is rolled at this temperature into the large rolls used in many mills today or folded, there is always the possibility of shaded goods, migration of dyestuff, tendering, or post-curing polymerization. The Temperdaire "fixes" the cloth at the most desirable point, cools it to normal temperature, and conditions the fabric.

In operation, water cooled air is blown upon the cloth through special nozzles. This moist cold air immediately reduces the cloth temperature to a predetermined point and also adds to the moisture content of the fabric which, at this point, is generally below desirable limits.

James Hunter Machine Co., North Adams, Mass.

For additional data, request item A-103, using Handy Return Card on page 184.

Vat Brown Provides Chlorine Fastness

Ahcovat Brown 4-R Double Paste, homogeneous anthraquinone dyestuff recently added to Arnold, Hoffman's vat line, has several unique qualities.

The chlorine fastness of the dyestuff in rich, red-brown shades, is outstanding. It holds its hue when shade depth is increased or decreased, and it fades "on tone." Constant shade under artificial light and excellent money value in dark shades are additional key features. Light and wash fastness are excellent.

The product is recommended for use as a self-shade for production of smart red-browns and as a shading color, or as a basis for a combination of shades. Rust, hennas, and brick shades are produced economically.

Ahcovat Printing Brown 4-R Double Paste can also be effectively used as a self-shade for red-browns, which are capable of being built up to rich, dark browns on cottons, mercerized cottons, linen, and rayon fabrics. This printing brown also serves as a basis for the production of fawn, brown, and olive shades.

Arnold, Hoffman & Co., Inc., Providence, R. I.

For additional data, request item A-118, using Handy Return Card on page 184.

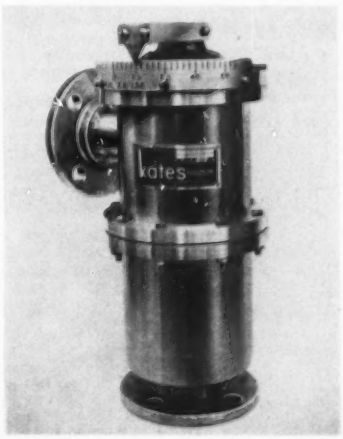
NEW Equipment AND MATERIALS

Flow Rate Regulator Features Down-Flow Design

An economical new flow rate regulator designed to control flow of both clear liquids and liquids containing light solids is a self-contained unit and is designated the Kates Type SA Regulator. It will accurately regulate the flow of light slurries, many suspensions, hot tar solution, and other similar materials, despite fluctuations in either inlet or outlet pressure. Unique down-flow design, specifically engineered to provide self-cleaning characteristics, prevents clogging and blocking by solids, and provides for complete drainage of the regulator with drainage of the piping system.

The Type SA uses no air lines, pressure regulators, air filters, seal pots, or other mechanisms. It is a direct-acting regulator and, thereby minimizes maintenance while pro-

Kates Type SA regulator.



viding fast, positive regulating action at all times. Once the pointer has been set for the desired flow rate, any change in either inlet or back pressure results in an immediate correction of flow rate.

Capacities range from 2 to 10 gpm for Model No. 1-SA, to 100 to 550 gpm for Model No. 7-SA.

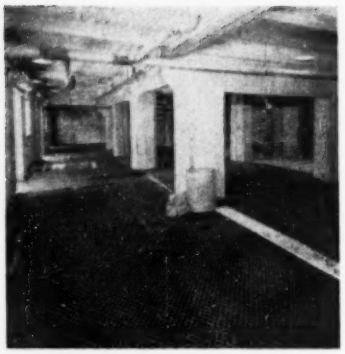
W. A. Kates Co., 430 Waukegan Rd., Deerfield, Ill.

For additional data, request item A-211, using Handy Return Card on page 184.

Steel-Reinforced Flooring Unit

A new "packaged unit" heavy duty flooring, called "Steel-Rock," combines a heavy steel mesh and special filler as a complete unit for surfacing floors subjected to extra-tough abuse. Claimed to out-live the building itself, this tough flooring meets the requirements of modern industrial production and materials handling problems.

The prime advantages are its ability to withstand impact as well as heavy loads and remain maintenance-free for years to come. The resilient filler used in the grid compacts to meet the level of the steel ribs, thereby permitting the wheels to ride on steel without the noise and slipperiness of a solid steel surface.



"Steel-Rock" flooring being installed. Mesh can be seen at left; completed floor at right (United Laboratories).

The product may be applied over new or old surfaces of wood or concrete, inside or outside, at a depth varying from 3/8 to 1 inch, depending upon job requirements.

United Laboratories, Inc., 16801 Euclid Avenue, Cleveland, Ohio.

For additional data, request item A-204, using Handy Return Card on page 184.

Swinging Clamp Device for Selective Tiering and Removal of Loads

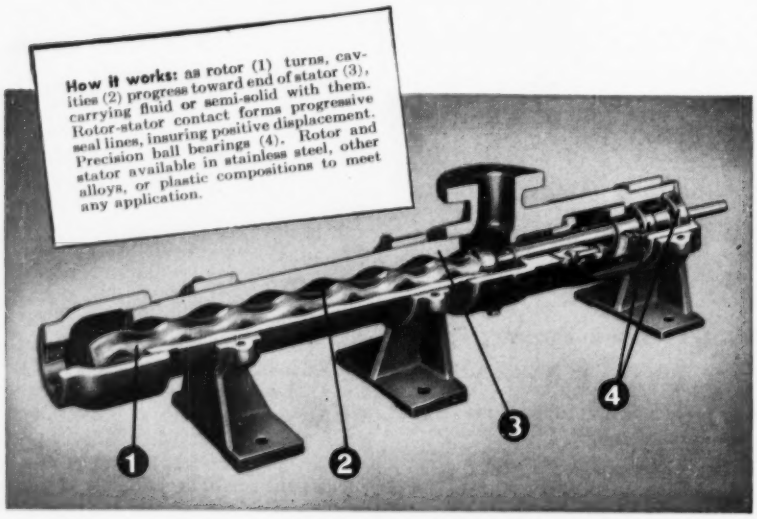
A swinging clamp attachment which can reach out to either side of a narrow aisle to grasp or tier loads behind material already stacked, is now available for use with all gas and electric-powered Carloader models of fork lift trucks manufactured by Clark Equipment Co.

While the unit can also be adapted for heavier machines, the maximum capacity for the attachment is 600 pounds, regardless of truck capacity. This is due to the side stability problem inherent in a long, overhanging boom.

The clamp device, designed especially for use where aisle space is at a premium and where load removal and tiering are selective, has a full 180-degree traverse. A wide range of gripping reaches are available, either by hydraulic shift alone or by combination hydraulic shift and manual adjustment of the rear pad.

The swinging clamp is readily detachable and interchangeable with other standard attachments.

Current models of this attachment


How it works: as rotor (1) turns, cavities (2) progress toward end of stator (3), carrying fluid or semi-solid with them. Rotor-stator contact forms progressive seal lines, insuring positive displacement. Precision ball bearings (4). Rotor and stator available in stainless steel, other alloys, or plastic compositions to meet any application.
1
2
3
4

If your pump requirements are a little different . . .

The entirely different MOYNO® Pump may be exactly what you need!

FACTS ABOUT THE MOYNO

the world's simplest pump

- **Positive Displacement**—available to pull up to 29 inches of vacuum while discharging under pressure. Big Moynos deliver up to 250 g.p.m. at 600 p.s.i.
- **Gentle**—no foaming; will not break up semi-solids.
- **Reversible**—pumps just as well either way.
- **Trouble-Free**—self priming; won't cavitate or vapor-lock. Just one moving part—no valves to stick, no pistons to gum up. Built for tough service, easy to maintain.
- **Versatile**—handles anything that goes through pipe.

If your materials are viscous, semi-solid, hard to move . . . if they're abrasive or tend to disintegrate . . . find out why Moynos handle jobs where other pumps fail!

The Moyno Pump represents a completely new and different concept of pump design. The cutaway above—and facts at left—show you why it's a pump you can install and *forget.*

And, chances are this versatile pump can solve your problem. Moynos pump clay for a leading pottery maker. They're being used for pumping caustics . . . white water in paper mills . . . even for pumping potato salad!

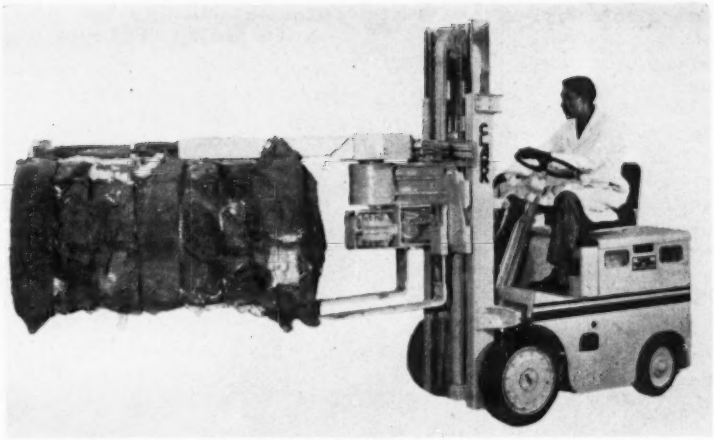
GET THIS BULLETIN

Get more facts today! Write for Bulletin 30-TI; it will tell you more about the versatile Moyno Pump.

ROBBINS & MYERS, INC.

SPRINGFIELD 99, OHIO • BRANTFORD, ONTARIO

Fractional & Integral Motors & Generators
Electric Fans
Electric & Hand Hoists & Cranes
Moyno Pumps
Propellair Industrial Ventilating Equipment



Clark fork lift truck with swinging clamp attachment.

are equipped with readily detachable, standard-type, 30-in.-long forks which serve to mechanically up-end bales when desired. Bales are simply released against the fork tips from a raised position, or fork tips may be chiseled under the edge of prone bales, lifted and moved forward to up-end. The up-ending forks drop by gravity as the swing device is raised, to permit load-handling at close range.

While standard bale clamp pads, with pad grippers, are provided on the attachment, other pads for handling light bulky loads such as cartons, tires, etc., can be supplied at extra cost.

Clark Equipment Co., Industrial Truck Div., Battle Creek, Mich.

For additional data, request item A-106, using Handy Return Card on page 184.

Sliding-Action Dry Box Pole Lasts 2 to 4 Times Longer

The Servo-Tek sliding-action dry box pole is lighter and stronger than the conventional pole, and will last 2 to 4 times as long. It is one-piece in construction and comes completely assembled, ready to install.

A special ⅛" synthetic outer surface is backed by a steel tang and is unaffected by heat or climatic conditions.

The specially-designed steel tang which lines the 3 cylinder sections provides smoother-sliding metal-to-metal contact, minimizes friction, and causes less jamming. By making the center cylinder section of uniform length, and varying the length of the end sections, the company is able to provide these new poles in any desired length. Another feature is the countersunk brass screws which replace the conventional method of wire binding.

Servo-Tek Products Co., Inc., Hawthorne, N. J.

For additional data, request item A-109, using Handy Return Card on page 184.

NEW Equipment AND MATERIALS

New Organic Sequestrants

Organic sequestrants, known as the Perma Kleers, are stable salts of polyamino carboxylic acids. Excellent solubility, superior chelation of ferric ion, and greater efficiency for sequestering calcium and divalent metals are distinguishing features.

The products react with metal ions to form water soluble chelates, deactivating them, without actually removing them from solution.

The metallo-Perma Kleer complexes are not precipitated by such agents as soaps, oxalates, phosphates, etc. The tendency to form metallic complexes is so great that most insoluble metal compounds are chelated. Of the common anions, only sulfide resists this force.

Soluble complexes are formed with ferric ion in both alkaline and acid media. This effect is particularly noticeable in the presence of soap

Are You Getting a Fair Day's Work for a Fair Day's Pay?

As Production Engineers we specialize in the utilization of

LABOR — EQUIPMENT — MATERIAL

Our list of clients reads like the Blue Book of American Manufacture, and in our files are many expressions as to our service and results accomplished, like the following:

"They qualified in every way on their estimate of what they would accomplish in the way of savings and better labor control.

A SYNTHETIC PLANT

Write for a free copy of "Labor and Management Benefit by Industrial Engineering Principles," and our booklet "A Fair Day's Pay and in return A Fair Day's Work".

AMERICAN ASSOCIATED CONSULTANTS, Inc.

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250 PARK AVENUE
NEW YORK 17, N. Y.

GRANT BUILDING
PITTSBURGH, PA.

H. B. CRAFT, Vice President and Manager of Operations
30 CAMDEN ROAD
ATLANTA, GA.

and synthetic detergents.

Refined Products Corp., Lyndhurst, N. J.

For additional data, request item A-120, using Handy Return Card on page 184.

Device Speeds Plumbing of New Era Spindles

Plumbing of Saco-Lowell New Era spindles can be accomplished with the Williams spindle plumber in less than half the time required by conventional methods, according to the manufacturer.

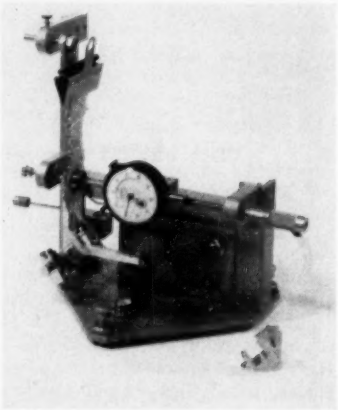
The device, made of aluminum alloy, is 10 inches long, and a ball under a glass at the top shows the operator when he has adjusted the spindle to a plumb position.

Williams Machine & Tool Co., 709 South Mint St., Charlotte, N. C.

For additional data, request item A-209, using Handy Return Card on page 184.

Thickness Gauge for Soft, Bulky Fabrics

Advantages to be derived from use of a new low pressure thickness gauge specially designed for determining the thickness of soft, bulky fabrics are: Fabric is suspended vertically, essentially free from friction, essentially independent of operator errors, high reproducibility, end-point determined by pressure transmitted through fabric.



The instrument can be used to secure data on bulk, compressibility, insulation value, and other properties not obtainable on thickness gauges operating at high pressures, according to the manufacturer.

Custom Scientific Instruments, Inc., P. O. Box 170, Arlington, N. J.

For additional data, request item A-111, using Handy Return Card on page 184.

Soil-Resistant Carpet Staple

Tufton, a new rayon carpet staple that resists soiling, is an improved version of an old rayon yarn, also called Tufton.

The new product is smoother so dirt slides off of it and it does not "wick" — that is, carry oil to the surface from the backing yarns. In addition, dull Tufton seems to soil less than it actually does.

The staple is available now in both bright and dull finishes, in eight and fifteen denier staple of any desired length. Production of a double-delustered Tufton is also planned.

American Viscose Corp., 1617 Pennsylvania Blvd., Philadelphia 3, Pa.

For additional data, request item A-102, using Handy Return Card on page 184.

CHAMBRAY
LAWN
INTERLINING
NAINSOOK
TICKING
OSNABURG
NETTING

FLANNEL
ORGANDY
OXFORD
DENIM
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IMPERIAL
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STANDARDIZED STARCHES

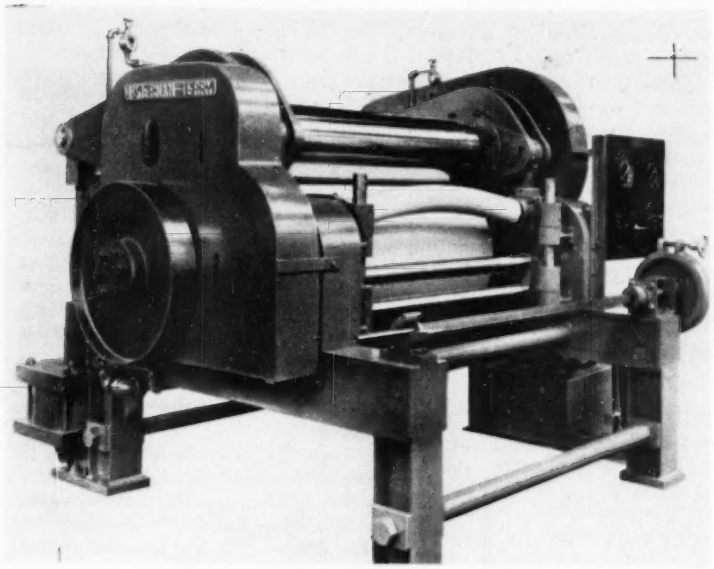
FOR THE SIZING AND FINISHING OF

TEXTILES

CLINTON FOODS INC.

CORN PROCESSING DIVISION

CLINTON, IOWA



McKiernan-Terry multi-purpose calender.

Multi-Purpose Calender Easily Converted from One Service to Another

A functionally-designed multi-purpose calender has been developed which will function as a friction, Schreiner, and embossing calender, and is specially adapted for use with resin finishes. It is converted from one service to another by simply changing rolls and gears, and the changeover takes only a few hours.

The calender is equipped with special oil seals to withstand high temperature, a lubricating oil circulating and cooling system, and heavy-duty anti-friction roll bearings which are easily and quickly removable, including their housings, by hydraulic pressure. It is built for pressures up to 75 tons, hydraulic or pneumatic.

McKiernan - Terry Corporation, Harrison, N. J.

For additional data, request item A-115, using Handy Return Card on page 184.

No Yellowing on Laundering with New Resin Finish

Fabrics treated with Resloom E-50, a new modified urea thermosetting resin, show no yellowing on laundering. Recommended for white and white-background applications, it contributes soft hand, good shrinkage control, ironability, and crease resistance to the fabric as well.

Other advantages imparted by Resloom E-50 are: No build-up on texturizing equipment, excellent durability of finish to alkaline wash, compatibility with common hand modifiers, excellent storage life and bath stability.

The chemical can be used for Schreiner, deep embossed, glazed or other texturized effects, either alone or in combinations with thermoplastic and thermosetting resins.

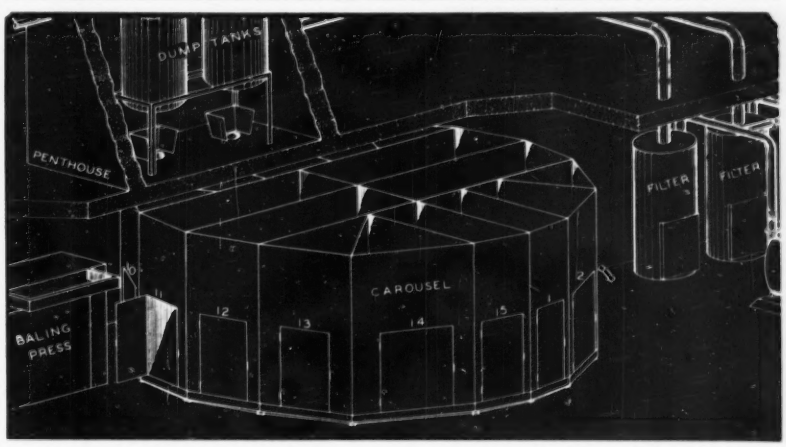
Monsanto Chemical Co., Merrimac Div., Everett, Mass.

For additional data, request item A-107, using handy Return Card on page 184.

Wearing Parts of Lighter, Smaller Revolving Joint Have Longer Life

Less weight, smaller size, and longer life for wearing parts are advantages offered by the Series 2000 Type J Johnson Joint designed for admitting steam or fluids into the rotating rolls and cylinders on textile processing machines.

Available in the through-flow or



GARDNER CAROUSEL INSTALLATION AT

SCOTTDALE MILLS . . .

The Gardner Waste Carousel can substantially reduce manual handling of waste in your mill. It saves labor, conserves floor space, provides better separation of waste and can be tailored to fit any mill!

Write today for complete details. Our representative will be glad to make complete estimations.

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OSCAR W. GARDNER & SONS

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syphon pipe type, the new series of joints is completely packless and self-adjusting. There is flexibility built right in to provide for lateral and angular misalignment.

Johnson Corp., Three Rivers, Mich.

For additional data, request item A-202, using Handy Return Card on page 184.

New Geigy Dyestuffs

Bright shades of scarlet of unusual wet fastness can be produced on cotton and viscose rayon with **Diphenyl Red RW,** a direct type of dyestuff. Other properties are excellent resistance to water bleeding and perspiration, excellent neutral and alkaline discharge, very good drawing characteristics. The product is especially suitable for the economical dyeing of dischargeable ground shades on rayon dress fabrics and can be used in many instances as a replacement for diazotized and developed scarlets.

Polar Brilliant Violet BL produces exceptionally bright shades of violet with good all-round fastness properties and outstanding light resistance. It draws well from a neutral bath on both nylon and wool and will exhaust almost completely onto either fiber with small amounts of acetic acid.

Solophenyl Brilliant Green 5GL is a bright yellowish shade of green with very good light fastness. It is well adapted for aftertreatment with copper and Acetic, Gycofix 67, and Gycofix 67 plus TBL Finish. When so aftertreated the shade goes appreciably yellower and a little duller, but wash fastness is materially increased.

Geigy Co., Inc., 89-91 Barclay St., New York 8, N. Y.

For additional data, request item A-701, using Handy Return Card on page 184.

New Book

The "Atlas of Blends," by Karl Leyerer, vice-president of a large woolen mill in Germany, contains 3200 original wool blends for woolen and worsted mills, grouped by color shades and tints, with their structure including exact mixture percentages. Consists of seven volumes and one volume of prescriptions. W. Sidler Textile Publishers. Available in the United States from Stellite American Corp., 60 East 42nd St., New York 17, N. Y. (price, $110.00).

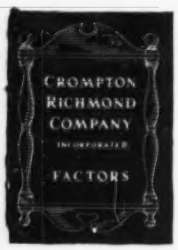
Want More Information on These Items?

Use Handy Return Card on page 184, giving Key Number (A-300, etc.) which appears after the name of the supplier of the item in which you are interested. Or, if you prefer, write supplier direct.

A low-maintenance **work-positioner** especially suited for bench level presentation of material that can be handled in stacks is called the "Benchevator." Raising or lowering of table is controlled through individual pushbuttons located within easy reach of operator.

Rodney Hunt Machine Co., Special Products Div., Orange, Mass. (A-301).

Low speeds made possible by a new variable speed disc assembly make the Reeves **Flexi-Speed Drive** especially adaptable for driving at recommended speeds to practically any gear reducer, and also for applications without reducer. Can be



The Human Factor

Streamlining For The South

More and more Southern firms are being Factored by Crompton. Many through recommendations. Others because of our reputation and experience; for we have produced in the South for more than 25 years, and have done business with the South for 100 years.

They welcome our service because we speak their language. They're too busy producing and distributing to be bothered with credit problems. They are now liquid because we take over their accounts receivables and keep them continually liquid – and at a lesser cost. They do more business and make more money because we thaw their frozen receivables.

Representatives:
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CROMPTON-RICHMOND CO., INC.
1071 Avenue of the Americas, New York 18, N. Y.

mounted in almost any position around the driven equipment, may drive in any direction, and can deliver any desired speed within a ratio of 6:1.

Reeves Pulley Co., Inc., Columbus, Ind. (A-302).

A new interior construction for **control valves** greatly simplifies the value and assures positive positioning of the sealing packers without placing any mechanical pressure on the packers themselves. Friction is minimized, wear is practically eliminated, and maintenance is low.

C. B. Hunt & Son, Inc., Salem, Ohio (A-303).

Packaged air conditioners for application in offices, factories, etc., feature an all-in-one completely sealed cooling system which incorporates a hermetic condensing unit.

General Electric Co., Air Conditioning Div., 5 Lawrence St., Bloomfield, N. J. (A-304).

A **double telescopic mast** for Towmotor Models 390, 420, 460, and 480-P makes it possible for one and the same lift truck to be used both for entering and loading or unloading boxcars and highway trailers, as well as for high stacking in storage areas, eliminating need for a second truck.

Towmotor Corp., Cleveland, Ohio (A-305).

So that motorized sweepers can be utilized safely in confined areas without endangering employees through harmful exhaust fumes, a **catalytic exhaust attachment** has been developed and is available.

Oxy-Catalyst, Inc., Wayne, Pa. (A-306).

A **Powerless Drop** for cylindrical loads, such as rolls of cloth, mechanically lowers loads from one floor to another and discharges them automatically. No power is required, a minimum of floor space is utilized, no problem of slowing down and stopping load, and practically no maintenance is required.

Gifford-Wood Co., Hudson, N. Y. (A-307).

A new **tape dispenser** moistens and applies any type of gummed tape directly to the carton. Portable, simple, economical.

Roll-On-Sealer Co., Antioch, Ill.

Fractional horsepower motors, known as Century Form "F," offer more horsepower in smaller frames with the same standards of performance and dependability.

Century Electric Co., St. Louis, Mo. (A-308).

A **magnetic amplifier motor drive,** the Bulletin 6520 Vari-Amp, is a compact, self-contained unit which will provide adjustable motor speeds from an a-c power source. Speed range of 10 to 1. Available with motors ranging in size from 1/40 hp to ½ hp.

The Clark Controller Co., 1146 East 152nd St., Cleveland 10, Ohio (A-309).

An **attachment for overlocking machines** is designed to eliminate the extra production problems of bar tacking and trimming loose ends as well as the extra handling involved in these operations. Known as the Pola Gauge Attachment, it is made for Merrow, W&G, Singer, or Union Special lock-stitch machines.

J. W. Grodin Co., 730 Arch St., Philadelphia 6, Pa. (A-310).

Especially able to withstand high temperature, vibration, and corrosion is the Titeflex **expansion-type bellows** for conveying gas and liquids.

NEW Equipment AND MATERIALS

Provides extreme flexibility for lines of low internal pressure as well as high external pressures.

Titeflex, Inc., 500 Frelinghuysen Ave., Newark 5, N. J. (A-311).

A **waterless hand cleaner,** called Antiseptic Waterless Sulpho Hand Cleaner, is formulated not only to clean hands while the operative is on the job, but also to offer protection for people with naturally dry or sensitive skins.

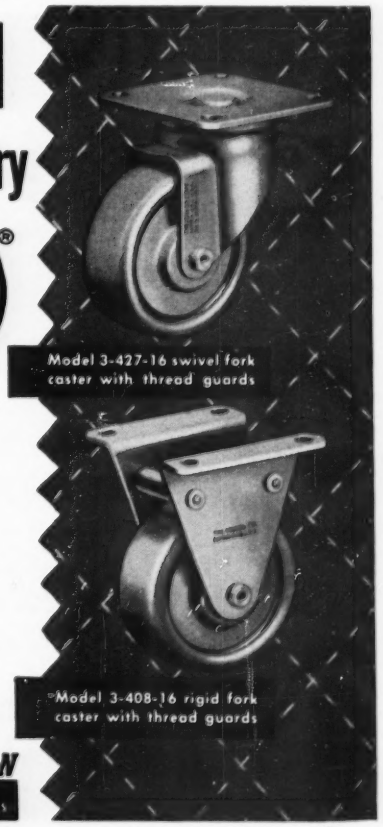
West Disinfecting Co., Long Island City, N. Y. (A-312).

Adaptable for batch or continuous process control is a new **platform weighing scale,** indication errors of which are never greater than 0.25% of range. Reproducibility is better than 1 part in 3000.

Weighing Components, Inc., 64 Fulmer Rd., Hatboro, Pa. (A-313).

A line of **geared flexible couplings**

Designed by the Textile Industry built by olson®



Model 3-427-16 swivel fork caster with thread guards

Model 3-408-16 rigid fork caster with thread guards

Our friends in the Textile Industry worked with us in developing casters and materials-handling trucks to meet their needs—*exactly*. The result is a line of casters, hand trucks, platform trucks, box trucks, and drum and barrel trucks that can add extra efficiency to any mill operation. COLSON Casters roll easily over all floors, swivel freely, are rust resistant. Many models have thread guards. Write us or consult the yellow pages for the COLSON office near you.

Write for free catalog—
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CASTERS · LIFT-JACK SYSTEMS · INDUSTRIAL TRUCKS

NEW Equipment AND MATERIALS

for high speed and high torque applications combines sturdiness and light weight. Besides transmitting power efficiently, they accommodate a reasonable amount of shaft misalignment and end float.

Link-Belt Co., 307 N. Michigan Ave., Chicago 1, Ill. (A-314).

Continuous spray cleaning by solvent, emulsion, or aqueous solutions is made easier with the new Model B-202-M Siphon Spray Gun designed to draw fluid directly from a 55-gallon drum.

John B. Moore Corp., P. O. Box 3, Nutley 10, N. J. (A-315).

Samples of **Biuret,** $H_2NCONHCONH_2$, an experimental product which can be used in applications where Urea or Melamine are now utilized, are available for research work.

Nitrogen Div., Allied Chemical & Dye Corp., 40 Rector St., New York 16, N. Y. (A-316).

For automatic lubrication of conveyor chains, etc., the Oil-Rite **chain oiler** is available. Positive lubrication when chain is running is assured. Avoids excessive lubricant, keeps floors clean, lengthens life of chain.

Oil-Rite Corp., Manitowoc, Wis. (A-317).

A **torque wrench** with a capacity from 0 to 1,000 foot pounds has "Stay Set" dial that accurately registers torque reading and remains at maximum after tension is released. Thus, careful check of obtained tension is possible after pulling has ceased. Dial is reset by turning center knob.

Manzel Div. of Frontier Industries, 318 Babcock St., Buffalo, N. Y. (A-318).

Complete protection from inclement weather to men and materials is provided by a new model **shelter** that is used when no loading dock is available, such as when unloading from a box car into a truck.

Atlas Industries, Inc., Chicago, Ill. (A-319).

To handle either single faced or double faced pallets, the new 2000 lb Model SD **Combination Pallet Load Lift** is available. Also announced is the Model D Pallet Load Lift, 2000 lb capacity, especially designed for use with double faced pallets.

The Market Forge Co., Materials Handling Div., 35 Garvey St., Everett 49, Mass. (A-320).

A new type of **polyethylene film** for textile packaging can be printed without the ink chipping, cracking, and rubbing off. It is designated "Visqueen C."

Visking Corp., Plastics Div., Terre Haute, Ind. (A-321).

Suitable for analytical work in industrial processing, research, etc., is a new small **electron microscope** (EM-75). Magnification is continuously adjustable between 1500 and 15,000 diameters.

Research & Control Instruments Div., North American Philips Co., Inc., 750 S. Fulton Ave., Mount Vernon, N. Y. (A-322).

The Bel Connector is a cast iron fitting that **seals pipe leaks** quickly, safely, and without cutting off flow in the system. Neoprene gaskets form a gas-tight chamber which equalizes pressures inside the pipe and out.

Holoal Mfg. Corp., P. O. Box 95, Bellerose 26, N. Y. (A-323).

Nickel bearing Carpenter Stainless No. 20, a **sulphuric acid resisting stainless steel,** is now available. Columbium is added to No. 20 for those applications which involve welding during fabrication.

The Carpenter Steel Co., Alloy Tube Div., Union, N. J. (A-324).

For personnel directors is a new scientific tool called Flanagan **Aptitude Classification Tests,** consisting of 14 critical job elements which are necessary skills of 18 different occupations including accountant, chemist, office clerk, draftsman, electrician, engineer, machinist, mechanic, etc.

Science Research Associates, Inc., 57 West Grand Ave., Chicago 10, Ill. (A-325).

A new method of **cold galvanizing** for surface protection of steel and iron utilizes "Cold Galvanizing Compound" which may be applied with an ordinary paint brush, electric spray gun, or by cold dip. Special equipment or personnel training is unnecessary.

Galvicon Corp., 40 West 29th St., New York 1, N. Y. (A-326).

IHE opens the door to Profitable Resin Curing!
DIRECT FIRING
Pays Off in Top Efficiency
IHE Resin Curing Machines, direct fired with either gas or oil, give wider temperature range and more positive temperature control than with steam. The tension control features of this machine make it ideal for embossed goods. Easily adaptable to curing of water repellent and wrinkle resistent resin finishes. IHE can also supply machines for curing latex treated fabrics. If you have a special curing problem, let IHE engineers consult with you.
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NOW

a 26% active slurry form of IGEPON made from tallow...costing only 9½ cents per lb.

IGEPON TE-42

AVAILABLE IN BULK QUANTITIES

ANTARA is now offering the first tallow-based synthetic detergent ever made for commercial use.

Because of its high performance at lowest possible cost, the new IGEPON TE-42 promises many new uses in broad fields of application.

If you use a detergent in your operations, we suggest you try the tallow-based IGEPON TE-42, a slurry form sold in bulk at 9½ cents per pound, f.o.b. shipping point.

Write today for technical data and a sample of IGEPON TE-42.

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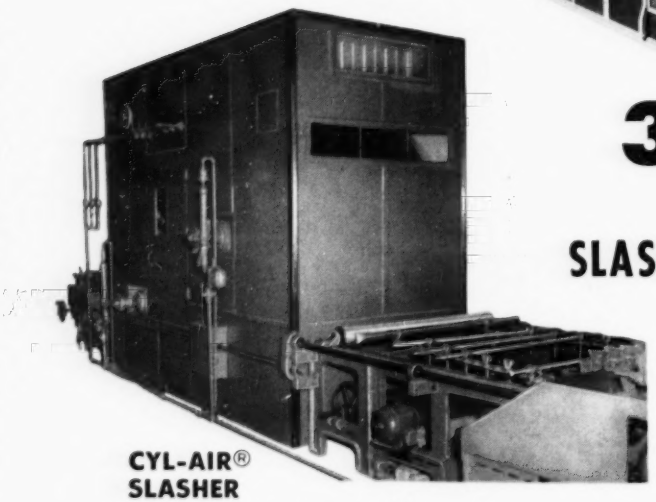
AIR-DRI SLASHER
Ⓡ (Patented)
A high-capacity, hot-air type that is satisfactory for cotton, wool and spun synthetics. Drying rates as high as 1500 lbs./hr.



CYL-AIR® SLASHER
(Pat. Pending) A new type of dryer that combines benefits of hot air and cylinder methods of drying. It is a highly versatile unit with big production capacity.

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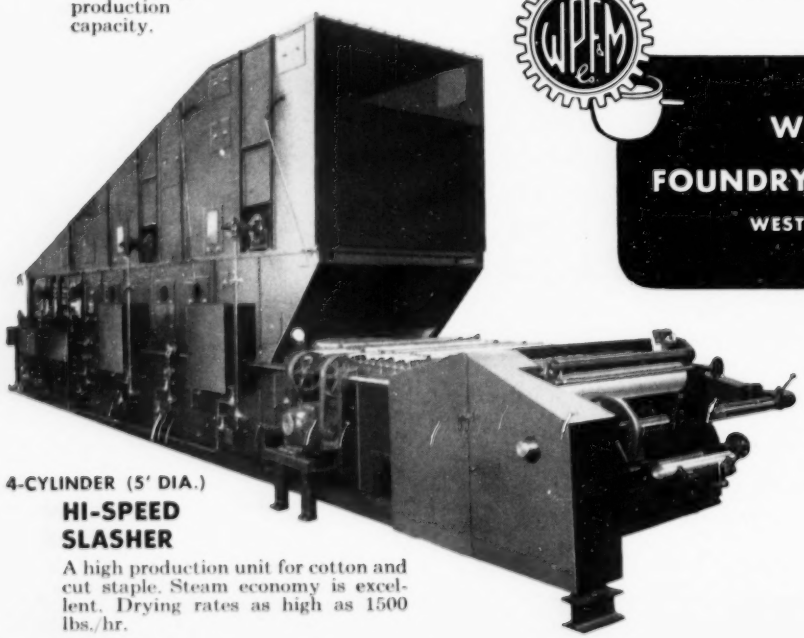
TO STEP UP
SLASHER ROOM PERFORMANCE

WPF&M Slasher Units skillfully combine the many advantages of new slashing principles and advanced machinery techniques. Hourly drying rates are increased. Quality is improved, and operating costs lowered.

Whatever your slasher room requirements, whether you're running natural or synthetic fibers . . . light or heavy warps . . . small run or full production . . . it will pay you to investigate the modern line of WPF&M Slashing Units.



4-CYLINDER (5' DIA.)
HI-SPEED SLASHER
A high production unit for cotton and cut staple. Steam economy is excellent. Drying rates as high as 1500 lbs./hr.

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We will be glad to send you more information on the WPF&M Slasher Line, or, if you wish, make a survey of your slasher room without obligation.

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1-1 Dust-Tight and Vapor-Tight Fluorescent Fixtures for Textile Mills. Color brochure by the Miller Company shows types, specifications and dimensions of Miller fluorescent fixtures. Performance, component parts, typical applications and advantages also shown. Write The Miller Company, Meriden, Conn.

1-2 Bleaching with Peroxygen Chemicals. Bleaching methods for cotton, rayon, nylon and animal fibers are comprehensively treated in Becco Research and Development Dept., Bulletin No. 52, now available. Write Buffalo Electro-Chemical Co., Inc., Station B, Buffalo 7, New York.

1-3 Rolls for Textile Use. Rodney Hunt Machine Co. has released a revised edition of a complete catalog on metal, rubber, wood and plastic rolls. Teflon-covered rolls are treated in new feature of the catalog. Write to Rodney Hunt Machine Co., Dept. R. C., Orange, Massachusetts.

1-4 Pre-Drilled Textile Flooring. Bulletin shows advantages of hardwood flooring with pre-drilled nail holes. An innovation for hardwood flooring laid on wood subfloor, over cement slab or wood construction. Write Holt Hardwood Company, Ontario, Wisconsin.

1-5 Textile Parts by Gastonia Textile Sheet Metal Works, Inc. Brochure describes services and lists equipment available, including cylinders, top combs, half laps, aspirators, card screens, etc. Write Gastonia Textile Sheet Metal Works, Inc., Gastonia, N. C.

1-6 The Wheelco "Flame-Otrol". Color bulletin by Wheelco Instruments Div., describes their new, dependable Combustion Safeguard for infra-red equipment, oil and gas fired dryers, boilers and furnaces. Write Wheelco Instruments Div., Barber-Colman Co., Rockford, Illinois.

1-7 The Application of Dyes to Textile Fibers at High Temperatures. Calco research paper reviews the research program on high temperature dyeing begun in 1938 by Bachmann Uxbridge Worsted Co. Write Advertising Department, American Cyanamid Co., Calco Chemical Div., Bound Brook, N. J.

1-8 Aluminum-Jacketed Foamglass Pipe Insulation. Bulletin points out advantages of the aluminum wrapped-at-the-factory cellular glass insulation. Illustrated condensed specifications for the insulation of both hot and cold lines are presented. Pittsburgh Corning Corp., One Gateway Center, Pittsburgh 22, Pa.

1-9 "Shadograph" Weighs Cotton Samples Faster. Literature tells how speed and accuracy in weighing 50-grain samples of cotton have made Exact Weight's "Shadograph" the favorite of the textile industry for use in the "Micronaire" test. Write Exact Weight Scale Co., 922 W. Fifth Ave., Columbus 8, Ohio.

1-10 Spaulding Fibre Products for Textiles. Booklet lists products made by Spaulding Fibre Co. for the textile industry. Also includes services to industry as a whole. Write Spaulding Fibre Co., 310 Wheeler St., Tonawanda, New York.

1-11 Selection, Maintenance and Installation of Modern Leather Belting. Booklet by Southern Belting Co. is designed to help mill men get the most from leather belting. Information is compiled and approved by the American Leather Belting Association. Write Southern Belting Co., 236 Forsyth St., S. W., Atlanta, Ga.

1-12 Handbook on Demineralization of Water. Explains the principles of ion exchange and discusses the applications of many anion and cation exchange materials. Operating results and flow diagrams of several existing plants are shown. Write the Cochrane Corporation, 17th St. below Allegheny Ave., Philadelphia 32, Pa.

1-13 How to Measure "Problem" Variables. How to determine the level, weight, displacement, composition, thickness, moisture and other "problem" variables is explained in a series of Technical Information Sheets. Write The Foxboro Company, Foxboro, Mass.

1-14 Chemically Treated Fiber Glass. Booklet describing tests comparing Garan treated fiber glass with two other leading chemical finishes is now available. Tells of the role played by Garanized fiber glass in plastic laminations. Write Libbey-Owens-Ford Glass Co., Dept. 5, Wayne Building, Toledo 3, Ohio.

1-15 Modern Dyeing Equipment. Booklet shows advantages offered by Gaston County Beam and Package Dyeing Machines. By changing metal carriers, they can be adapted to all dyeing needs. Write Gaston County Dyeing Machine Co., Stanley, N. C.

1-16 Gears for Every Purpose to Specifications. Pamphlet by Ferguson Gear lists stock gears for textile machinery and gives pitch, face, bore and hub. Write Ferguson Gear Co., Gastonia, N. C.

Handy Return Card ▶

- **List Booklets You Want By Number**
- **Request More Information On New Equipment Items**
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TEAR OUT AND MAIL TODAY! NO POSTAGE NECESSARY.

Please be sure to fill in your Firm's Name and your position on the Coupon. This service cannot be extended to you unless this information is furnished.

JANUARY, 1954

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HELPFUL BOOKLETS FREE!

GENERAL, ECONOMICAL MANAGEMENT . . .

4. HOW FACTORING CAN INCREASE PROFITS—Describes how factoring works out in keeping clients' capital liquid and attitude of factor toward checking credits, including typical balance sheet.—COMMERCIAL FACTORS CORP., New York City.

7. RAYON TELLS ITS STORY TO THE PUBLIC—Folder containing reprints of advertisements explaining sense of the many roles in which rayon is serving the American public.—AMERICAN VISCOSE CORPORATION, 350 5th Ave., New York 1, N. Y.

17. A FAIR DAY'S PAY AND IN RETURN A FAIR DAY'S WORK—8-page booklet outlining the services offered to industry for the proper utilization of labor, material and equipment, and the resulting advantages for both labor and management.—AMERICAN ASSOCIATED CONSULTANTS, INC., 250 Park Ave., New York, N. Y.

18. FACTORING—Information available on how factoring works to aid client in keeping capital fluid and to avoid credit losses. Inquiries regarding these services welcome.—L. F. DOMMERICH & CO., 271 Madison Ave., New York 16, N. Y.

19. INDUSTRIAL BUILDING—A 32-page booklet entitled "U S S 12, U S S 17 Stainless Steel Walls and Roofs for Industrial Buildings," is now available for distribution. This publication illustrates the use of type 410 and type 430 Stainless Steel Sheets in the construction of industrial and semi-industrial buildings. U S STEEL CO., 525 William Penn Pl. Pittsburgh 30, Pa.

20. VISION TESTING EQUIPMENT—Pamphlet entitled "What You Can Expect from a Good Vision Program," written by a prominent personnel director. Also circular describing the Keystone Occupational Visual Service.—KEYSTONE VIEW COMPANY, Meadville, Pa.

22. THE WONALANCET WAY—Is the title of a editorial booklet published five times a year and deal with current problems which appear worthwhile at the time they are written.—WONALANCET COMPANY, 128 Burke St., Nashua, N. H.

PLANT & PLANT MAINTENANCE . . .

102. "TANK TALK" — Sixteen-page booklet of illustrations showing various types of elevated steel tanks constructed and erected by manufacturers as well as stand pipes, reservoirs, storage and high pressure vessels, cylinders, along with helpful technical data. Also a list of what a few of the cotton mills, etc., said.—R. D. COLE MANUFACTURING COMPANY, Newnan, Ga.

103. HUMIDIFICATION, EVAPORATIVE COOLING—Bulletins available displaying AMCO automatic self-cleaning atomizers, controls, and evaporative cooling equipment.—AMERICAN MOISTENING CO., 260 W. Exchange St., Providence, R. I.

107. FINNELL SCRUBBERS — Illustrated leaflets describing and giving specifications for the Finnell floor scrubbing machines.—FINNELL SYSTEM, INC., Elkhart, Ind.

108. MAPLE FLOORING — Booklet describing finishing of Northern Hard Maple Flooring—list of M.F.M.A.-approved heavy-duty floor finishes.—MAPLE FLOORING MANUFACTURERS ASSOCIATION, Pure Oil Bldg., 35 East Wacker Dr., Chicago 1, Ill.

111. INDUSTRIAL FANS—Catalog sheets with specifications describing the complete line of Murray Industrial fans for plant ventilation. Seven sizes described from 24" with 1/3 HP motor delivering 5700 CFM to 84" with 3/4 HP delivering 17,584 CFM with advantages of heavy gauge metal construction brought out.—H. C. BIGLIN CO., 177 Harris St., N.W., Atlanta, Ga.

112. COTTON MILL EQUIPMENT—This book traces pictorially the steps in processing raw cotton into finished cloth. It shows the equipment needed for all phases of production, as well as containing a "Useful Information" section on Power Factor Correction, Lighting, Circuit Protection, etc.—WESTINGHOUSE ELECTRIC CORP., 511 Wood St., Pittsburgh 30, Pa.

117. CLEANING SYSTEMS — Booklet entitled "Certified Climate and Cleaning Systems" gives latest information on system. Products and uses fully discussed with two story layout of Certified Climate central station air conditioning system.—PARKS-CRAMER CO., Fitchburg, Mass., and Charlotte, N. C.

119. MOPPING EQUIPMENT — Complete catalog and circulars containing information on the many sizes and styles that can be had.—S. C. LAWLOR CO., 121 N. Aberdeen St., Chicago, Ill.

126. "SENTRY-LITE" bulletin illustrating and describing light unit that comes on automatically when power fails, illuminating 10,000 sq. ft. 9 hours or longer.—CLEVELAND ELECTRIC CO., 557 Marietta St. N.W., Atlanta 3, Ga.

127. SOLENOID VALVES—Bulletin "V" lists sizes from 1/2 inch to 3 inches; valves for normally open or closed service; stainless steel or Jenkins disc seats; three way solenoid valves, etc.; typical installations.—THE JOHNSON CORP., Three Rivers, Mich.

129. AIR CONDITIONING AND HUMIDIFICATION—Catalog section 101 lists and briefly describes each item of the complete Bahnson line of equipment for textile mill air conditioning and humidity control.—THE BAHNSON COMPANY, Winston-Salem, N. C.

131. "AIR PROCESSING."—Set of three bulletins showing real meaning of the term, where it can be used, the requirements for a successful system, etc.—J. O. ROSS ENGINEERING CORP., 444 Madison Ave., New York 22, N. Y.

133. PAINTING SPECIFICATIONS AND COLOR CHIPS—Industrial Paint and Color Guide, CC446, gives full painting specifications for exterior and interior of industrial plants with complete color samples.—THE SHERWIN-WILLIAMS CO., Painter Maintenance Div., Cleveland, Ohio.

135. COLOR CONDITIONING—Booklet illustrated in color describes how DuPont color conditioning puts color to work for you. Many ideas on safety brought out which color can aid.—E. I. du PONT de NEMOURS & CO., INC., Finishes Div., Wilmington 98, Delaware.

136. METAL CONVEYOR BELTS—Recent catalog describes and illustrates Ashworth's entire range of manufacture, including the new flat wire belt design and application, along with their woven wire constructions and positive drive chain edge belts.—ASHWORTH BROS. INC., Metal Products Div., Fall River, Mass.

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150. RINCO HUMIDIFIERS AND COOLING SYSTEMS—Bulletin describes new atomizers with construction lessening air consumption in humidifier systems, evaporative cooling systems.—ALDRICH MACHINE WORKS, Greenwood, S. C.

151. INDUSTRIAL BRUSHES—Illustrated booklet of industrial brushes featuring textile usage on shears, printing machines—also flock, raising and cylinder brushes.—M. W. JENKINS SONS, INC., 444 Pompton Ave., Cedar Grove, N. J.

153. LAMINATED TEXTILE PLASTICS—Booklet by Synthane Corporation shows variety, applications, and advantages of laminated plastic parts and supplies for the textile industry.—Write: SYNTHANE CORPORATION, Textile Division, Oaks, Penna.

154. AIR CONDITIONING FOR THE TEXTILE INDUSTRY.—Booklet shows advantages of air conditioned mills in better products and more efficient workers, and gives values of White & Co. air conditioning in particular.—WHITE & CO., INC., 1440 S. Tryon St., P. O. Box 533, Charlotte, N. C.

182. MODERN METHODS OF TEXTILE FLOOR MAINTENANCE—Illustrated treatise on the history of floor cleaning in textile plants and a detailed description of new methods for reducing floor cleaning costs as well as preserving textile mill floors.—G. H. TENNANT COMPANY, 2530 N. Second St., Minneapolis 11, Minn.

157. MAINTENANCE—Silicone water-repellent for masonry described in data sheet XR-129G-1. Properties and application of an invisible, durable, non-plugging, silicone masonry water repellent that is inexpensive and easy to apply fully discussed.—DOW-CORNING CORP., Midland, Mich.

158. FLOATING BOTTOM ROVING TRUCK—Booklet by Excel Textile Supply shows advantages of roving truck with automatically adjusted bottom. Eliminates reaching over into truck by keeping load level within easy reach of operator.—EXCEL TEXTILE SUPPLY CO., Lee Ave., Lincolnton, N. C.

161. AUTOMATIC CLEANING EQUIPMENT—Complete booklet by American MonoRail shows working details and advantages of the Tri-Rail Cleaner, a great improvement over the original unit.—AMERICAN MONORAIL CO., 13107 Athens Ave., Cleveland 7, Ohio.

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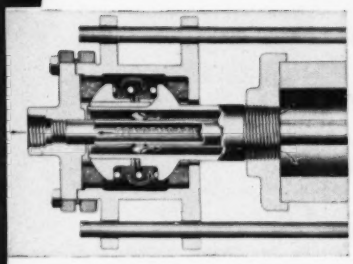

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237. MOTOR CONTROL—Brochure gives description and engineering data on the Cutler-Hammer Motor Control for roving and spinning frames. Users listed and advantages discussed.—CUTLER-HAMMER, INC., Milwaukee, Wisc.

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262. SMALL PRECISION METAL PARTS—Catalog by Torrington Company describes many special precision metal parts made by its Specialties Division.—THE TORRINGTON COMPANY, Specialties Division, 500 Field Street, Torrington, Connecticut.

265. SERVICE PROCEDURE FOR BALL BEARINGS—A helpful manual for maintenance engineers giving helpful hints on disassembly, inspection, cleaning, lubrication, and replacement of ball bearings in any mechanism.—NEW DEPARTURE, Division of General Motors Corp., Bristol, Conn.

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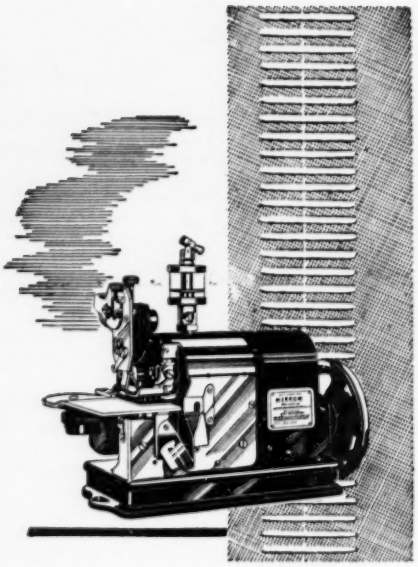

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321. RED-RAY BURNERS—Bulletin describing use of Red-Ray Burners in preheating and partial drying to increase capacity of frame.—RED-RAY MFG. CO., 445 W 45th St., New York, N. Y.

324. STROBOTAC—Informative reprint, "Strobotac Boosts Efficiency in Woolen and Synthetic Mills."—GENERAL RADIO CO., Cambridge 39, Mass.

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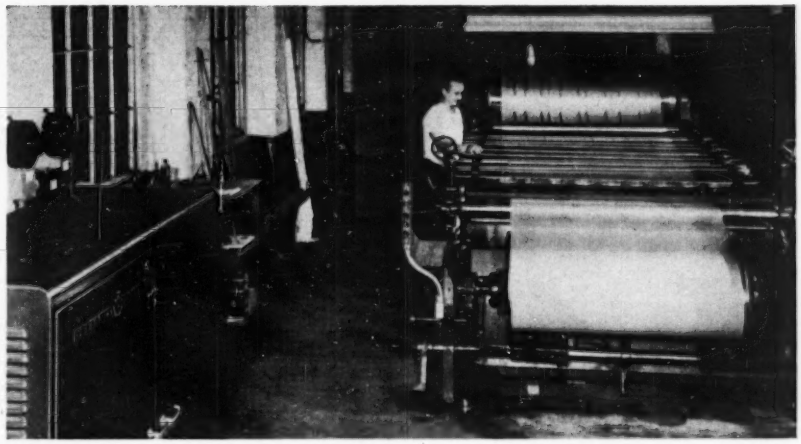

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470. TENSION CONTROL IN TEXTILES—Booklet describes many applications and advantages of Link Engineering's "Tod-Caps." Well-illustrated with diagrams and pictures, it gives specifications and capacities.—LINK ENGINEERING COMPANY, 13843 Elmira Avenue, Dept. D, Detroit 27, Michigan.

471. FACTS ABOUT YOUR FLYERS AND SPINDLES—Booklet by Ideal Machine Shops shows how smooth Flyer and Spindle operation can help produce higher and more efficient output, good quality yarn, minimum wear, and larger bobbins.—IDEAL MACHINE SHOPS, Bessemer City, North Carolina.

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474. BALL BEARING COMB BOXES—Southern States Equipment Corp. offers literature on their famous C-1 Ball Bearing Comb Boxes. Description, working principle, cut-a-way views shown.—SOUTHERN STATES EQUIPMENT CORP., Hampton, Georgia.

475. TEXTILE ROLL COVERINGS AND MILL SUPPLIES—Color booklet by Armstrong shows and describes their complete line of textile roll coverings, including also loom supplies, mill supplies, Roll covering for Cotton, Silk and Synthetic and Woolen and Worsted systems. An excellent guide book.—ARMSTRONG CORK CO., Industrial Div., Lancaster, Pa.

WEAVING, SLASHING . . .

501. LOOMS — An accordion type folder is available entitled "Unfolding to You the World's Largest Line of Looms." Information on all types fully discussed.—CROMPTON & KNOWLES LOOM WORKS, Worcester 1, Mass.

502. COUNTING AND MEASURING DEVICES—Condensed textile catalog illustrating and describing pick counters, hank counters, cut meters, measuring counters. Wide range of counting devices for production recording on all types of textile machinery.—VEEDER-ROOT, INC., Hartford, Conn.

503. WEAVER'S KNOTTER—A catalog on the Boyce Weaver's Knotter giving a few instructions as to its use, recommendation as to the proper type knotter for the various types of yarns, and the spare parts that go to make up the knotter.—A. B. CARTER, INC., Gastonia, N. C.

504. LOOM SUPPLIES—Literature describing complete line of straps, strapping, pickers, dobby cords, sticks, binders, bumpers, brake lining and allied products.—E. H. JACOBS NORTHERN DIV., THE BULLARD CLARK CO., Danielson, Conn.

506. SLASHING HINTS—A 20-page booklet offering helpful hints on warp sizing. Subjects: Size cooking equipment, section beam tension, sizing selvages, cooking, use of split rods, weighing for the mix, tips on cooking equipment, storage in kettles, etc.—SEYDEL-WOOLLEY & CO., 748 Rice St., N.W., Atlanta, Ga.

507. VARIABLE SPEED SLASHER DRIVE—Reeves bulletin G-503 describes their Servo-Control slasher drive which automatically controls tension from creel to beam, and which controls the stretch in the slasher.—REEVES PULLEY CO., Columbus, Ind.

508. LOOM PRODUCTION CHARTS—Convenient celluloid card showing yards per loom per week of 40 hours at various loom speeds.—RALPH E. LOPER CO., Greenville, S. C.

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809. MULTI-MOTOR SLASHER DRIVES—Booklet designed to bring the descriptive information on multi-motor slasher drives up to date, and emphasize the improvement in the drive through the use of Rototrol for the control of winding tension.—WESTINGHOUSE ELECTRIC CORP., 511 Wood St., Pittsburgh 30, Pa.

510. THE ROMANCE OF PRAIRIE GOLD—Attractive illustrated book which tells the story of corn and the uses of corn products to industry.—CORN PRODUCTS SALES CO., 17 Battery Place, New York, N. Y.

511. ALUMINUM BEAMS—Catalog No. 1-21 describes Hayes magnesium and aluminum specialties for the textile industry. Illustrates this company's beams that are one-third the weight of conventional types.—HAYES INDUSTRIES, INC., Jackson, Mich.

517. LOADING SYSTEM—Bulletin 417, on pneumatic loading system for Saco-Lowell slasher size box squeeze rolls, contains installation photo, features, specifications, and prices.—THE FOXBORO COMPANY, Foxboro, Mass.

521. STEEL WARP BEAMS—20-page Catalog No. 45 illustrating Standard and Special Purpose Warp Beams for the weaving industry, both broadloom and narrow fabrics. Also Textile Machinery Specialties.—MILTON MACHINE WORKS, INC., Milton, Pa.

524. JOHNSON WARP SIZES—12-page fully illustrated booklet, describing the 7-cylinder sizer with stretch indicator and finger-tip control of stretch. A point-by-point analysis.—CHARLES B. JOHNSON MACHINE WORKS, Piercy & Holaman Sts., Paterson, N. J.

530. ROTARY UNIONS—New catalog shows how to cut costs, get better sealing, on can dryers, slashers, calenders, etc. Catalog No. 500 entitled "Where Good Connections Count."—PERFECTING SERVICE COMPANY, Atando Ave., Charlotte, N. C.

536. HOMOGENIZER IMPROVES SLASHING—Pamphlet by Manton-Gaulin Manufacturing Company shows how mechanical conversion of size by the Gaulin method produces better size. Gives installation pictures and specifications.—MANTON-GAULIN MANUFACTURING COMPANY, INC., Everett, Massachusetts, U. S. A.

537. WEST POINT'S HOT AIR SLASHER—Bulletin describes advantages and capacities of new hot air slasher by West Point Foundry and Machine Works. Detailed specifications included.—WEST POINT FOUNDRY AND MACHINE WORKS, West Point, Georgia.

538. AIR SLASHER DRYER—Pamphlet by Proctor & Schwartz shows construction and operating details of the Proctor Air Slasher Dryer. Advantages listed and cut-away view shown.—PROCTOR & SCHWARTZ, INC., 7th St. and Tabor Rd., Philadelphia 20, Pa.

539. AUTOMATIC REGAIN CONTROL OF RAYON AND SYNTHETIC FIBRE SLASHING—Technical booklet by Minneapolis-Honeywell gives data on their electronic, multi-range "Moist-O-Graph" system for controlled regain. Write for No. B54-66.—MINNEAPOLIS-HONEYWELL REGULATOR CO., Station 64, Philadelphia 44, Pa.

540. SLASHING EQUIPMENT—Brochure by Tower Iron Works shows different types of slashing equipment, enumerating characteristics and advantages of each.—TOWER IRON WORKS, 50 Borden St., Providence 3, R. I.

DYEING, FINISHING CLOTH ROOM . . .

602. CONTROLLED VAT DYEING—Calco technical booklet No. 828 discusses stabilization of vat dyes at elevated temperatures, instrumental and analytical measurements, Leuco Potentials.—AMERICAN CHEMICAL CO., Calco Division, Bound Brook, New Jersey.

606. HYDRAULIC POWER UNITS—Literature describing hydraulic unit, motor, pump, reservoir, valving a small compact unit for operating of hydraulic calenders, presses, hydraulic controls, etc.—B. F. PERKINS & SON, INC., Holyoke, Mass.

610. PROCTOR DRYING MACHINERY FOR THE TEXTILE INDUSTRY—Illustrated, descriptive catalog on all types of dryers for raw stock, warps, package dyed and automatic skein yarn. Also includes Pre-Boarding and Automatic Boarding Machines for hosiery.—PROCTOR & SCHWARTZ, INC., 7th and Tabor Rd., Philadelphia, Pa.

615. HIGH PRODUCTION EXTRACTOR FOR RAW STOCK—YARN—HOSIERY — Descriptive bulletin and full information on automatic Twintainer Extractor with bottom-unloading removable baskets. Machine replaces three conventional extractors, lowers labor costs.—FLETCHER WORKS, INC., Philadelphia, Pa.

616. FINISHING DRIVES—32-page booklet covers complete drives Westinghouse has engineered for the textile finishing industry. Describes all types of finishing ranges and discusses advantages of Westing-House drives for these installations. "Packaged" drives for batch processes covered.—WESTINGHOUSE ELECTRIC CORP., 511 Wood St., Pittsburgh 30, Pa.

617. AUTOMATIC CONTROL SYSTEM FOR CONTINUOUS BLEACHING—Illustrated folder describes the new method of controlling the temperature, pressure, and liquid level in the continuous bleach operation.—TAYLOR INSTRUMENT COMPANIES, Rochester 1, N. Y.

620. REGENERATION OF ZEOLITE WATER SOFTENERS—Booklet explains advantages of International's Lixate Process in regeneration of zeolite water softeners. Shows how it cuts costs and does a better job.—INTERNATIONAL SALT COMPANY, INC., Scranton, Pennsylvania.

623. SELVAGE GUIDER—The Marshall and Williams positive overfeed and selvage guider is described in a brochure as being developed to meet the most modern requirements of the textile finishing industry. Full description, pictures and advantages discussed.—MARSHALL & WILLIAMS CORPORATION, 46 Baker Street, Providence 5, R. I.

627. SINGLE APRON STOCK DRYERS—Folder presenting the latest idea in automatic drying which every mill having drying problems can profitably use to meet modern manufacturing conditions.—C. G. SARGENT'S SONS CORP., Graniteville, Mass.

631. ELIMINATE DYE-BATH SHOCK—Data sheet by Foxboro shows how woven fabrics and hosiery may be protected from Crow's feet, uneven shade, creasing caused by too rapid cooling of goods. Write for data sheet, 220-60, FOXBORO COMPANY, 487 Neponset Ave., Foxboro, Mass.

632. LUG STRAP WASHERS—Series 1-C illustrated bulletin detailing right and wrong application and use of washers.—E. H. JACOBS NORTHERN DIV., Danielson, Conn.

637. BALL BEARING TURN TABLE—Leaflet describing this 48" diameter steel turn table for use in mills where the cloth is delivered in rope form to trucks and the trucks are placed in position ahead of a Scutcher or cloth opening machine. Advantages discussed.—BIRCH BROTHERS, INC. 32 Kent St., Somerville, Mass.

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638. DYEING AND FINISHING MACHINES—Booklet by James Hunter Machine Company shows pictures, applications, and advantages of following: "Vapo Jet" Dryer; "Hunter Dye Beck"; "Flexreel" Rope Washer; Continuous Cloth Washer; Model "S" Dye Kettles; Compartment Washer; Fulling Mill; Top Dyeing Machine; "Uniflow" High-speed Tenter Dryer; Cloth Carbonizer.—JAMES HUNTER MACHINE CO., North Adams, Mass.

639. ROTARY DYEING MACHINE—Booklet No. 425 illustrating the features of these stainless steel machines used for dyeing hosiery, hats, gloves, socks, etc.—SMITH, DRUM & CO., Allegheny Ave. at 5th St., Philadelphia 33, Pa.

653. GUIDERS AND TENSION DEVICES—Illustrated and described are the mount Hope Precision Guiders and open width Tension Devices used for accurate straight line guiding of open width goods. Bulletin SG-PG.—MOUNT HOPE MACHINERY CO., 15 Fifth St., Taunton, Mass.

654. ION EXCHANGERS—Bulletin details a general history of ion exchange, gives data on proper selection of ion exchangers and lists general applications in the treatment of water.—PERMUTIT COMPANY, 330 West 42nd Street, New York 36, N. Y.

655. PAPER TUBES FOR YARN AND CLOTH—Complete data to help you solve your paper tube problems. Overnight delivery of yarn and cloth paper tubes and boards. Shows how warehousing of these items can be avoided.—TEXTILE PAPER PRODUCTS, Cedartown, Ga.

DYESTUFFS, CHEMICALS, SOAPS . . .

700. COTTON FINISHING OILS—New booklet by Twitchell devoted to finishing Sanforized Fabrics contains such specific data as a re-wetting speed, imparted softness, resistance to yellowing, and "balance" of these properties.—EMERY INDUSTRIES, INC., Dept. 5, Carew Tower, Cincinnati 2, Ohio.

701. MAGNESIUM APPLICATIONS—Case history information on magnesium application in the textile field, published bi-monthly with latest developments in the magnesium industry.—DOW CHEMICAL CO., Midland, Mich.

705. THEORETICAL AND APPLIED SILK-SOAKING—Attractive 23-page booklet outlining methods of silk-soaking and outlining investigation on the soaking, back-winding and degumming of silk.—HART PRODUCTS CORP., 1440 Broadway, New York 18, N. Y.

706. RHONITE RESINS—Booklet describes the Rhonite Resins as being developed to impart hand to fabrics ranging from stiffness through full resiliency to silky suppleness, depending on the demand of the season. Full information and uses given.—RHOM & HAAS COMPANY, Washington Square, Philadelphia, Pa.

710. DEPUMA—An odorless, viscous, non-evaporating emulsion which is highly efficient as an anti-foam, useful in all phases of dyeing and printing.—AMERICAN ANILINE PRODUCTS, INC., 50 Union Square, New York, N. Y.

713. LIOVATINE ED—Vat dyeing assistant increasing penetration and level dyeings with maximum yield of color.—SANDOZ CHEMICAL WORKS, 61 Van Dam Street, New York City.

714. NEW SODA ASH BULLETIN—64-page edition contains both new material and revisions of previously used data covering the subject. Ask for Bulletin No. 5.—SOLVAY SALES DIV., 40 Rector St., New York 6, N. Y.

715. AQUAROL AND ARKANSAS PRODUCTS—Bulletin on Aquarol water repellent finish with method of preparing bath; also on other Arkansas products for cotton, wool, silk and yarn, hosiery processing.—ARKANSAS CO., INC., Newark, N. J.

721. SUSFAX 1288—Product data sheet explains this useful wetting and rewetting agent. Described as being water soluble at all temperatures and is a highly concentrated, economical surface active agent.—E. F. HOUGHTON & CO., 303 W. Lehigh Ave., Philadelphia, Pa.

727. COLOR PRINCIPLES—Booklet available from Sandoz Chemical describes the fundamental principles of color and its measurement. Booklet has been adopted by several of the leading textile schools.—SANDOZ CHEMICAL WORKS, INC., 61 Van Dam Street, New York 13, N. Y.

728. UNIQUE YARN AND DYEING SERVICE—Booklet by Franklin Process tells why Franklin Process Yarn Dyeing Service is one of the top package yarn dyeing services. Also includes table showing relative fastness of dyestuffs used on various fibers.—FRANKLIN PROCESS CO., 564 Eddy St., Providence, R. I.

729. STATIC AND STATIC CONTROL—Papers deal with historical background of static electricity and the problems caused by it along with methods of controlling them.—DEXTER CHEMICAL CORP., 819 Edgewater Road, New York 59, N. Y.

732. USES OF PERSULFATES—A bulletin which presents a bibliography of the properties and uses of persulfates is available from the Buffalo Electro-Chemical Company. Application to Textiles discussed thoroughly.—BUFFALO ELECTRO CHEMICAL CO., Station B, Buffalo 7, New York.

733. WOOL OILS—Twin booklets by Proctor and Gamble tell of the influence of wool oils in producing quality yarns and fabrics, and of Proctor and Gamble's Proxol T, an outstanding wool oil.—PROCTOR AND GAMBLE DIST. CO., Cincinnati, Ohio.

745. RAPIDASE FOR DESIZING—Bulletin explaining in detail the properties and characteristics of Rapidase.—WALLERSTEIN CO., INC., 180 Madison Avenue, New York 16, N. Y.

749. WATER SOLUBLE GUMS—Booklet giving the origin, gathering, marketing and uses of water soluble gums. This booklet No. 23 is beautifully illustrated, and is one of the few treatises on the subject.—JACQUES WOLF & CO., Passaic, N. J.

753. TRITON X-100—Booklet available describing this highly concentrated detergent and wetting agent. Main uses fully discussed and chemical properties brought out.—ROHM & HAAS COMPANY, Philadelphia 5, Pa.

757. THE CHEMISTRY OF CYNANURIC CHLORIDE—Very comprehensive technical text by American Cyanamid Co. Gives Physical Properties, Reaction Chart, Chemical Properties, Potential Applications, Toxicity, Table of Alcohol Reactions, Table of Amine and Related Compound Reactions.—AMERICAN CYANAMID CO., 30 Rockefeller Plaza, New York 20, New York.

763. TEXTILE CHEMICALS—Booklet, well executed and in color, tells of American Viscose Company's "Avisco" textile chemicals for lubricating, softening, static control, sizing and finishing.—AMERICAN VISCOSE CORPORATION, Textile Research Department, Marcus Hook, Pa.

766. DU PONT PEROXIDE BLEACHING SYSTEMS—New book illustrating and describing this continuous peroxide bleach system. Layouts and other information included.—E. I. DU PONT DE NEMOURS & CO., ELECTROCHEMICAL DEPT., Wilmington, Del.

768. TEXTILE CHEMICALS—Buying guide and reference book giving facts about Amalgamated Products, the fabrics on which they give best results, their proper application, and their chemical composition.—AMALGAMATED CHEMICAL CORP., Philadelphia 34, Pa.

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769. SURFACE TENSION DEPRESSANT—The booklet, "Mercerizing and Alkamerce—The Ideal Dry" which can be used as a wetting agent; a dye leveling agent, a penetrant in package dyeing.—HART PRODUCTS CORP., New York, N. Y.

773. TECHNICAL CHEMICAL DATA SHEETS—Complete set for dyeing, printing and finishing operations, showing major operations, performance and advantages.—ONYX OIL & CHEMICAL CO., 190 Warren St., Jersey City 2, N. J.

774. ROYCE TEXTILE CHEMICALS—This booklet briefly describes the leading Royce products for textile processing printing, dyeing and finishing.—ROYCE CHEMICAL COMPANY, Carlton Hill, N. J.

KNITTING . . .

801. THE WILDMAN SINGLEHEAD FULL-FASHIONED HOSIERY MACHINE—Literature on request from the WILDMAN MFG. CO., Full-Fashioned Division, Norristown, Pa.

808. REINER WARPER—Full width and sectional warpers for all requirements in the knitting and weaving industry fully described in recent catalog.—ROBERT REINER, INC., Weehawken, N. J.

818. MILTON LIGHT METAL BEAMS FOR EVERY APPLICATION—Catalog 45-A describing Light Metal Tricot Beams made in Standard and Special sizes plus Special Purpose Light Metal Textile Equipment.—MILTON MACHINE WORKS, INC., Milton, Pa.

823. VARIABLE STRIPER—Booklet available describing Supreme's complete line of Automatic Variable Stripers and Pattern Placer Machines.—SUPREME KNITTING MACHINE CO., INC., 105 Johnson Ave., Brooklyn 6, N. Y.

828. THE KIDDE KNITTER—Bulletin describing this newest in Raschel-type warp knitting machines and higher production attained with it.—KIDDE MANUFACTURING CO., INC., Farrand St., Bloomfield, N. J.

SEWING MACHINES . . .

916. THE SUPERLOCK—Bulletin 828 describing and illustrating the W & G Superlock overseaming machine.—WILLCOX & GIBBS SEWING MACHINE CO., 214 W. 39th St., New York 18, N. Y.

924. BUTT-TACKING SEWING MACHINE—Booklet describes an operating installation of the Merrow single thread butt-tacking sewing machine. Gives performance data, and advantages of butt-tacking.—THE MERROW MACHINE COMPANY, 28 Laurel Street, Hartford, Connecticut.

1000. LIGHTWEIGHT ELECTRIC HOIST—A new bulletin describing its line of lightweight "Liftabout Jr." electric hoists is available from Shepard Niles Crane and Hoist. Gives advantages, capacities, sizes, etc.—SHEPARD NILES CRANE & HOIST CORP., Montour Falls, New York.

MATERIALS HANDLING . . .

1003. CASTERS AND WHEELS—192 pages, describing casters and wheels suitable for all types of industrial applications. Every mechanical engineer and purchasing agent should have this.—DARNELL CORP., LTD., Long Beach 4, Calif.

1004. PITTSBURGH COLLAPSIBLE CARGO-TAINERS—Stacked they lock in place and permit visible inventory; collapsed they nest in small area. Base permits entry by all types of lift trucks. Write for brochure MH-15.—PITTSBURGH STEEL PRODUCTS COMPANY, Pittsburgh 30, Pa.

1006. LANE CANVAS BASKETS—16-page illustrated booklet describing the Lane line of canvas baskets for textile use.—W. T. LANE & BROTHERS, Poughkeepsie, N. Y.

1007. OVERHEAD HANDLING EQUIPMENT—56 pages of illustrations showing successful applications of monorail systems to meet every kind of handling problem—THE AMERICAN MONORAIL CO., 13106 Athens Ave., Cleveland, Ohio.

1008. CASTERS AND WHEELS—An illustrated booklet with complete specifications showing a complete assortment of Cotton Textile Casters.—THE COLSON CORP., Elyria, Ohio.

1010. CONVEYOR KEY BOOK—A guide to production "step-ups" now possible with modern conveying. Shows time-and-effort savings. Well-illustrated with photos showing plant layouts and sketches showing where, how and why different types of conveyors are used for maximum results.—LOGAN CO., 1115 Franklin St., Louisville, Ky.

1011. TEXTILE TRUCKS—Booklet describing doff boxes, frames and trucks, yarn, waste, platforms, conditioning, steep lap, fiber, utility trucks, etc. Uses and description.—EXCEL TEXTILE SUPPLY CO., Lincolnton, N. C.

1012. "SERVES YOU RIGHT" is theme of succint review of fork-lift trucks, powered hand trucks and industrial towing tractors, with emphasis on proper planned materials handling systems, which can be obtained from CLARK EQUIPMENT CO., Industrial Truck Div., Battle Creek, Mich.

1013. "A STORY OF TRACTOR TOOLS AND THEIR USE"—Comprehensive illustrated guide effectively present in cartoon-style the many principal uses for this type of equipment.—HYSTER CO., 2903 N.E., Clackamas St., Portland 8, Ore.

1025. ELECTRIC HOISTS AND CRANES—Booklets describing a complete line of Electric Overhead, Cab and Floor-Operated Traveling Cranes, and a similar complete line of Electric Hoists. All fully discussed with pictures and engineering diagrams.—SHEPARD NILES CRANE & HOIST CORP., Montour Falls, N. Y.

1030. CDF RECEPTACLES—This 32-page catalog, R-11, profusely illustrated in color, shows Continental-Diamond's line of boxes, trucks, cans, barrels, baskets and trays. Complete description and specification are given on each item.—CONTINENTAL-DIAMOND FIBRE CO., Newark 11, Del.

1032. ELECTRIC CHAIN HOISTS—Bulletin 852 describing Robbins & Myers Type "JC" electric chain hoists. Capacities 500, 1000 and 2000 pounds.—ROBBINS & MYERS, INC., Hoist & Crane Div., Springfield, Ohio.

MISCELLANEOUS . . .

1101. AUTOMATIC BOBBIN REFINISHER—A descriptive bulletin illustrating and describing method of refinishing throwing bobbins on a production schedule.—J. M. NASH COMPANY, 2300 N. 39th St., Milwaukee, Wis.

1102. BALING PRESSES—An illustarted folder describing this manufacturer's complete line of balers for all materials. Both Downstroke and Upstroke models.—ECONOMY BALER CO., Ann Arbor, Mich.

1103. UNBRAKO SCREWS—Illustrated 16-page booklet No. 570 gives data on Unbrako hollow set screws, with knurled point, self-locking features. Includes miscellaneous screw and locking nut data.—STANDARD PRESSED STEEL CO., Jenkintown, Pa.

1107. AUTOMATIC QUILL POLISHER—Bulletin describes production machine for refinishing loom bobbins. Tells how quills can be kept in perfect condition at minimum labor cost.—J. M. NASH CO., 2360 N. 30th Street, Milwaukee 10, Wis.

News in Brief

(Continued from page 75)

added, replacements made too soon are uneconomical since technological advances in machinery over a short period of time are minor.

"Neighbors In Alabama." Compiled by the Alabama Cotton Manufacturers Association, a new booklet tells how the textile industry and Alabama towns have proved themselves good neighbors as recorded by the press. A limited number of the booklets are being distributed to schools and other organizations in Alabama.

Stocking Pairing to be Simplified. A General Electric scientist, Norman F. Barnes, has predicted that a color-detection instrument made by GE will replace expensive and tedious hand-pairing of women's stockings and pre-cut cloth.

Fabric for Race Drivers. The West German motor racing team which competed in 1953 at Le Mans, France, for the 24-hour car race, was equipped with special clothing. A West German textile chemical firm stated that "Alflamman" is a specially treated material which is impregnated with a chemical to make it resistant to flames. The material is said to be exceptionally protective, even to prolonged burning, while retaining its porosity.

Solution Dyed Fibers Not to Displace In-Plant Dyeing. A representative of a large synthetic fiber manufacturer recently stated that solution-dyed synthetics should not affect the position of textile plants having large investments in dyeing equipment for these fibers. Despite the lower overall production cost to the mill of solution dyed fibers, the range of colors is not as complete as those available for in-plant dyeing, particularly in regard to luster and other characteristics.

Help for French Textiles. The French Ministry of Trade is planning to set up trade attaches in overseas embassies to assist the troubled French textile industry. At first these will be restricted to those countries in which the French government feels there is some hope of substantially increasing exports. Help is being provided in these efforts by leading French textile associations.

Drycleaning Recommended for Felt. Felt garments such as skirts, jumpers, vests, and other apparel must be drycleaned for best results, according to the National Institute of Drycleaning, Inc., Silver Spring, Maryland. Because of the danger of shrinkage, home laundering or wetcleaning of felt is not suitable cleaning procedure. The chief complaint in the handling of felt garments is relaxation shrinkage. The organization is engaged in new research on the handling of felt in drycleaning and will soon release a technical bulletin to its members covering its findings and recommendations.

The CPA in Small Business. How the services of certified public accountants may be profitably utilized by small businessmen is explained in a booklet titled "Public Accounting Services for Small Manufacturers." The booklet is available from the U. S. Superintendent of Documents, Washington 25, D. C., for 15 cents a copy.

Dollars for Trade Without Aid. In an addendum to a booklet which was first published in June, Dr. Claudius T. Murchison of ACMI has stated that foreign nations as a whole are able to balance their accounts with the U. S., including debt payments, without the need of ECA grants. Dr. Murchison credits the "great rise" in American imports as the "chief factor" in reversing the trade balance of America with the world.

New Textile Items in Germany. Among items shown at a review of camping equipment in Germany were practical small tents and family tents weighing only 4 kg, bell tents at under 100 DM retail, and sleeping bags with elastic Perlon filling to impart warmth and requiring only a very small space.

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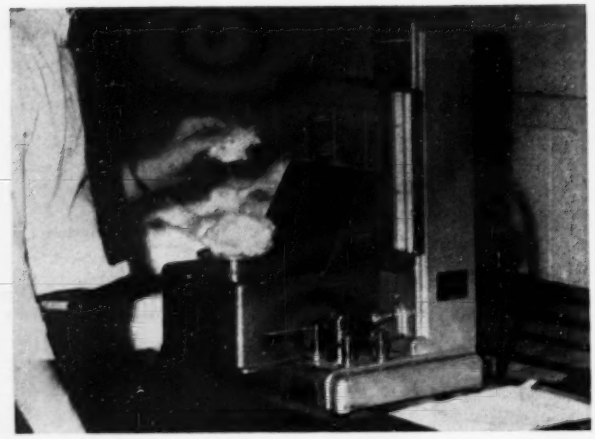

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What the TEXTILE MILLS are doing

The recently chartered **A. B. C. Manufacturing Co.** has joined with Providence Braid Co., 358 Lowden St., Pawtucket, R. I., the new corporation to be known as the **Providence Braid Co.**

Adams-Millis Corp., High Point, N. C., has constructed a three-story brick building to replace the old church building used by the company since 1919. Total cost was over $200,000.

An expansion and improvement program is under way at **Albany Felt Co.,** 1373 Broadway, Albany, N. Y., at an estimated cost of $250,000. Improvements are also being made in the firm's branch mills at Hoosick Falls, N. Y., and North Monmouth, Me.

A one-story addition to the mill is under construction at **Alden Mills,** Meridian, Miss. Part of the structure will be used as a cardboard box manufacturing unit for packing and distribution of company products.

Allen Knitting Mills, Inc., has installed additional equipment at its branch finishing mill at West Sand Lake, N. Y.

The Retirement Trust Fund of **Avondale Mills,** Sylacauga, Ala., has been increased by payment of $474,157.16 by the company. The firm's total contribution is now $9,000,140. Members of the fund share in it on a basis of units: one unit for each year of service and one for each $100 of other earnings.

Contract has been let by **Baxter, Kelly & Faust, Inc.,** for construction of a one-story addition to its mill No. 1 at Stoneville, N. C.

A one-story building in Henderson, Ky., has been taken over by **Bear Brand Hosiery Co.,** 131 South Wabash Ave., Chicago, Ill., to be operated as a branch mill.

Belmont Woolen Yarn Mills, Woonsocket, R. I., have changed their name to **B. W. Y. Co.**

The Shelton, Conn., property of **Sidney Blumenthal & Co., Inc.,** has been sold to The Sponge Rubber Products Co.

Cluett, Peabody & Co. have in progress an expansion and modernization program at their branch mill at Kitchener, Ont., which includes construction of a one-story addition and installation of additional equipment.

Columbia Tape Mills, Inc., East Greenville, Pa., has announced the availability of a new high strength fiber glass webbing in a wide variety of widths and thicknesses, which is said to possess unusual tensile strength and wearing quality. It was developed by J. G. Tyson, Jr., an official of Columbia, in collaboration with Owens-Corning Fiberglas Corp.

Twenty-seven supervisory employees of **Cross Cotton Mills Co.,** Marion, N. C., recently participated in a 10-hour course in safety, conducted by a safety representative with the North Carolina Industrial Commission. Training supervisory personnel how to look for hazards and how to eliminate them was especially emphasized.

The Hazelton, Pa., plant of **Duplan Corp.** was sold to George Friedland of Food Fair Stores of Philadelphia. It will be leased to various small industries, according to reports, with about 110,000 sq ft being retained by Duplan for its Jacquard sample department.

A one-story addition to the plant is under construction by **Duro Finishing Corp.,** 110 Chace St., Fall River, Mass.

The Bartow Textiles, Inc., plant, consisting of 47,000 sq ft of space, was recently leased to **E-Z Mills, Inc.,** Cartersville, Ga., for expanded operations.

Febieger Top Co., Inc., 250 Summer St., Boston, Mass., was recently chartered for production of wool tops and allied specialties. President of the firm is William S. Febieger.

A gift of $50,000 was authorized recently by **Marshall Field & Co.** to help the Tri-Cities communities of

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J. N. ANDERSON, Treasurer

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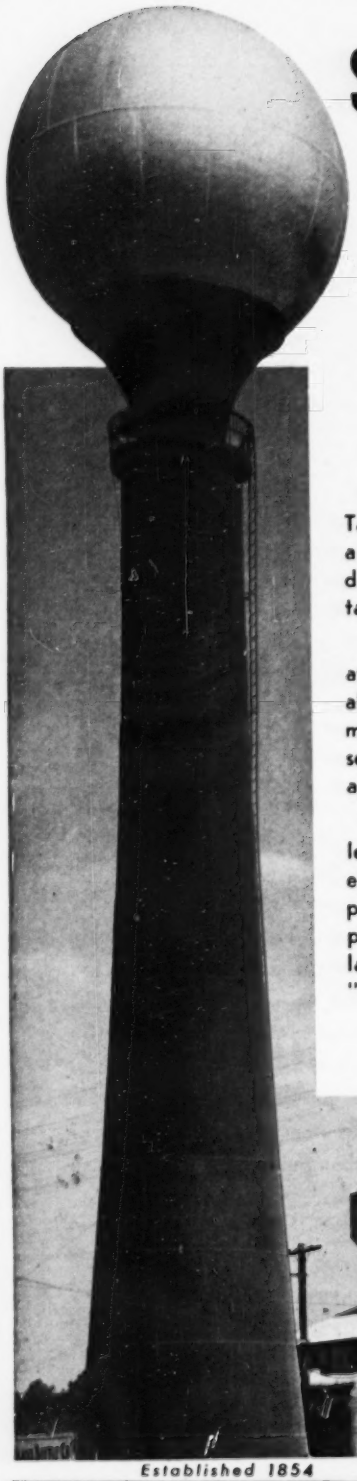

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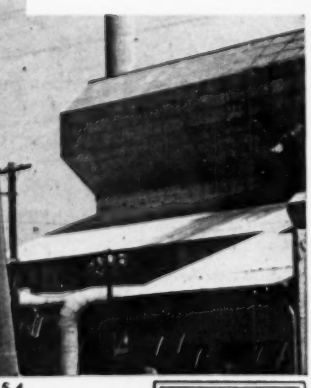
The COLE Spherical Tank on Tubular Tower is a pioneer in its field. We design and erect special tanks of this character.

This design provides an attractive and serviceable unit—economical to maintain, efficient in service and pleasing in appearance.

Write for special booklet on these modern welded Spherical Tanks which provide gravity water pressure, and for copy of latest COLE catalog—"Tank Talk."



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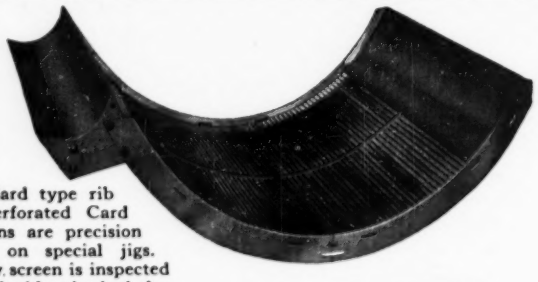
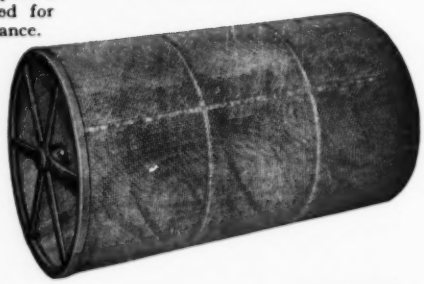
The quality and the profit of your end product starts at the beginning—where preparatory machinery must be geared for efficient, economical volume production. That's our job—a job for specialists with the reputation for top quality products, painstaking workmanship and reliable service.



Standard type rib or perforated Card Screens are precision built on special jigs. Every screen is inspected and double checked for accuracy and tolerance.



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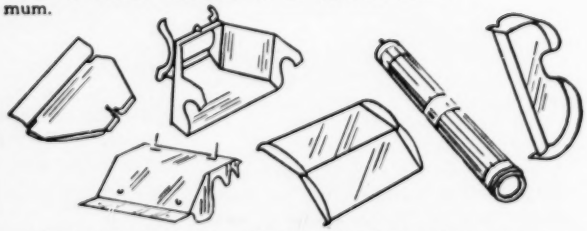

Years of practical experience—the finest of raw materials—and precision machinery in the hands of skilled workmen go into every product.

GASTONIA TEXTILE SHEET METAL WORKS, INC.
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A SHEET METAL WORKS SERVING TEXTILE MILLS

What the TEXTILE MILLS are doing

Spray, Leaksville, and Draper, N. C., obtain a public-owned general hospital.

The spinning equipment of **Flagg-Utica Corp.'s** Mill No. 4, Utica, N. Y., has been sold to Hall's Textile Machinery Co., Charlotte, N. C. Plant No. 6 in Utica has been closed and its knitting and finishing equipment moved to Plant No. 4.

J. H. Freedman and T. L. Freedman are incorporators of **J. H. Freedman Co., Inc.,** organized to manufacture rayon and other textile fabrics.

Carlton Yarn Mills, Cherryville, N. C., have purchased **Frieda Manufacturing Co.,** a subsidiary of Beaunit Mills. The unit will be known as the Carlon division of Carlton Mills.

A complete plisse unit has been added to **Greenwich Printing & Dyeing Co.,** East Greenwich, R. I. Also, the finishing plant has installed a friction calender for chintz finishes.

Guttman Knitwear Creations, Inc., recently chartered, will manufacture a line of knitted outerwear. David F. Sussman, 50 East 42nd St., New York, N. Y., will represent the firm.

The weaving mill of **Goodman & Theise, Inc.,** Taylor, Pa., and part of the equipment have been purchased by **Hess, Goldsmith & Co., Inc.,** Wilkes-Barre, Pa. They will be used for expansion in production, particularly Dacron. Goodman & Theise have acquired the mill of **Rhode Island Worsted Co.,** Stafford Springs, Conn., and will modernize this and the mill in Scranton, Pa., to provide for installation of special wide looms and humidification equipment for weaving of Dacron.

A new air-conditioning system is being installed in Mill No. 3, Charlotte, N. C., of **Highland Park Manufacturing Co.**

A new hose which is said to have a construction that locks the other stitches in place if the wearer snags a thread has been developed by the **Holeproof Hosiery Co.,** Milwaukee, Wis. Known as "A'resta Snag," it will be made of 12-denier nylon yarn.

A one-story building, providing about 75,000 sq ft floor space, has been constructed by **Holly-Knit, Inc.,** at its Gastonia, N. C., plant.

Interwoven Stocking Co., 123 Church St., New Brunswick, N. J., which previously manufactured men's socks exclusively, has included junior socks in cottons and spun nylons.

Jarvis Manufacturing Corp. was recently chartered to manufacture rayon and other synthetic fabrics. Matthew C. Cunningham, 263 Prospect St., Pawtucket, R. I., is the principal incorporator and representative.

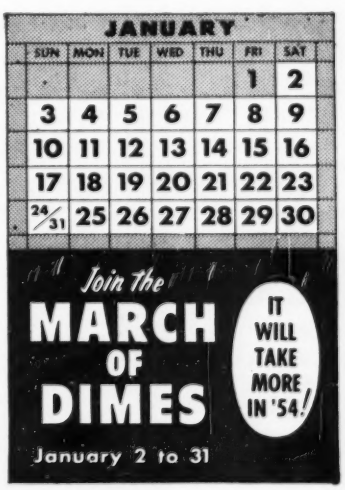
Employees and families of **Joanna (S. C.) Cotton Mills Co.** have been offered "flu" serum in order to cut down the amount of illness each fall and winter. The charge to the individuals was set at 50¢, to cover part of the cost of the serum, and arrangements have been made for nurses from Joanna Hospital to administer the shots.

At **Judson Mills'** eighth annual service award banquet in Greenville, S. C., recently, more than 315 employees were honored. Their periods of service vary from five to more than twenty-five years.

A one-story addition to the Albany, Ga., mill has been constructed by **A. & M. Karagheusian, Inc.,** Freehold, N. J. About 10,000 sq ft floor space have been provided for warehouse service.

Julius Kayser & Co. has sold its subsidiary in Australia to Bondor Ltd., London, England, for a reported sum of $2,000,000.

A 350-acre site at Bethune, S. C.,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The slasher room foreman, in order to satisfy the superintendent and the cost department, must have available a Slasher Cloth that:

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2. Holds its width. No shrinkage.
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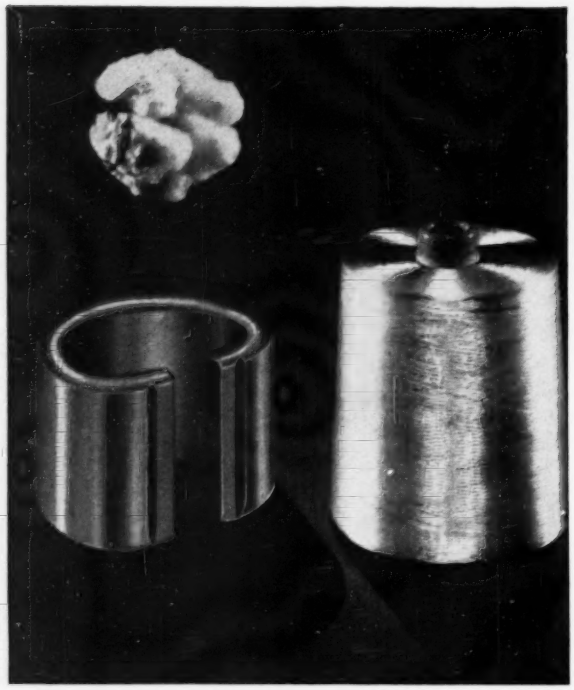

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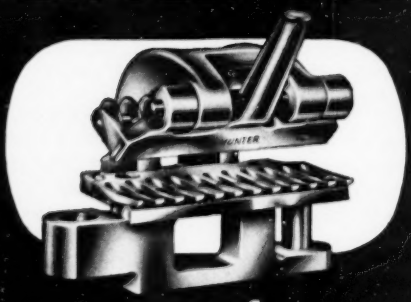

serves for regular feed or overfeed without pins

Get the facts about the advanced new Universal Tenter Clip* — developed by James Hunter Machine Company, made and sold in United States and Canada exclusively by Marshall and Williams.

ADVANTAGES: Operates on any standard tenter frame as a regular clip or will accommodate overfeeding if frame is equipped with Hunter overfeed device. Can be instantly changed from regular feed to overfeed without shut-down of tenter frame. No changing of chain required—no alteration of machine necessary. Comb-like plate on clip gives uniform and complete drying of selvage. The cost of this clip and overfeed equipment is very reasonable. Doing away with multiple tentering units reduces floor space requirement by one-half—with all resultant savings. Operating speeds are the same as with conventional clips. Uniform and accurate overfeeding up to 20% easily obtainable.

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MARSHALL and WILLIAMS CORPORATION
PROVIDENCE, R. I. • GREENVILLE, S. C. • NEW YORK, N. Y.

has been purchased by the **Kendall Co.** for a finishing plant.

Machinery and equipment of **Klearflax Linen Looms, Inc.,** Duluth, Minn., were recently sold at public auction. Land and buildings are being sold separately.

Lady Sylvia Knitwear, Ltd., recently chartered, is represented by Borgis Marcus, 55 West 42nd St., New York City.

Lambert Hosiery Mills, Inc., has moved its operations from Lambertsville, N. J., to 350 Northwest 75th Street, Miami, Florida.

Elastic braids, webbing, etc., will be manufactured by the recently chartered **Marstan Braid Corp.,** West Warwick, R. I. Ernst T. Voight, 35 Fessenden Rd., Barrington, R. I., is principal incorporator and representative.

C. H. Masland & Sons have under construction a one-story addition to the mill, providing about 100,000 sq ft floor space, to be used largely for warehouse service. The firm has sold its sportswear division to **American Pad & Textile Co.,** Greenfield, Ohio.

The real estate and equipment of **Melville Woolen Co.,** Sykesville, Md., have been sold at public auction.

An expansion program, including installation of package-dyeing equipment and facilities, is being carried out at **Mid-West Processors, Inc.,** Libertyville, Ill.

Monterey Modes of California, Inc., 1024 Santee St., Los Angeles, Calif., has established a new division for production of sweaters, known as Saucy Sue Knits.

The Cohoes, N. Y., plant of **Beaunit Mills** has been purchased by **National Automotive Fibres, Inc.,** and will be used for expansion purposes.

Naumkeag Steam Cotton Co. has closed its Pequot Mill at Salem, Mass., and is consolidating production at its southern plant in Whitney, S. C.

A modernization program, to cost $125,000, in progress at the **Nolde & Horst Co.,** Reading, Pa., will increase production facilities and keep the industry in the original building. The firm has sold its building at Womelsdorff and offered for sale the full-fashioned knitting machines in the plant. It will no longer knit its own full-fashioned hosiery, but will continue to knit most of its Nolde-Westminster men's socks.

A one-story building for warehouse service is under construction at **Opelika (Ala.) Manufacturing Corp.**

Opp (Ala.) Mills have built a new weave room containing 22,400 sq ft floor space.

Philadelphia Carpet Co. has opened a branch at 3424 Sunset Boulevard, Los Angeles, Calif., for storage and distribution.

A textile dye and finish mill is being operated by the recently chartered **P-V-M Finishing Co., Inc.** Seymour J. Shyman, 1407 Broadway, New York, is attorney and representative.

Reamstown Hosiery Mills, Inc., recently purchased sixty 400-needle women's seamless hosiery machines for its new plant in Reamstown, Pa.

An expansion program at the Rossville, Ga., plant of **Richmond Hosiery Mills** is now under way.

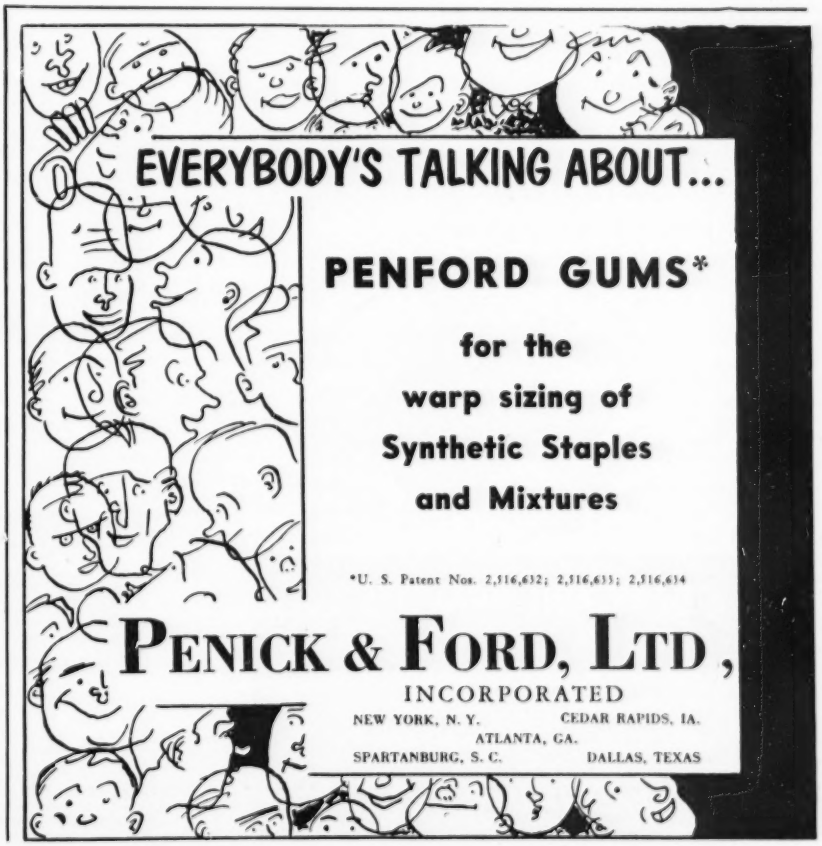
What the TEXTILE MILLS are doing

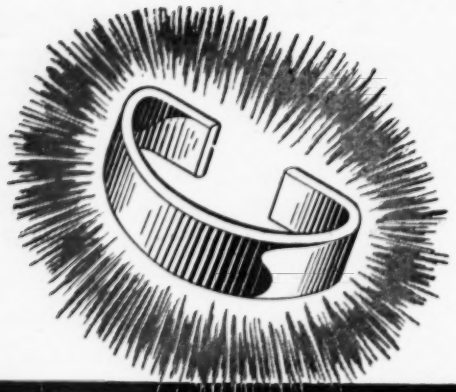
Approximately 400 employees having five or more years of service with the firm were honored at the twelfth annual service banquet of **Roanoke (Va.) Mills, Inc.**

Shenandoah (Va.) Knitting Mills have added 36 knitting machines in the area recently completed. More than 18,000 sq ft floor space are available, and employment is expected to be doubled.

Shuford Mills, Inc., Hickory, N. C., has moved its executive offices and laboratory to a building adjacent to the East Hickory mill group, where considerably more space has been provided.

Alexander Smith, Inc., has under construction at Columbus, Ohio, a 100,000 sq ft warehouse which will replace warehouses in Detroit, Pittsburgh, and Indianapolis, and the Cleveland warehouse which had been destroyed by a tornado. It will be a





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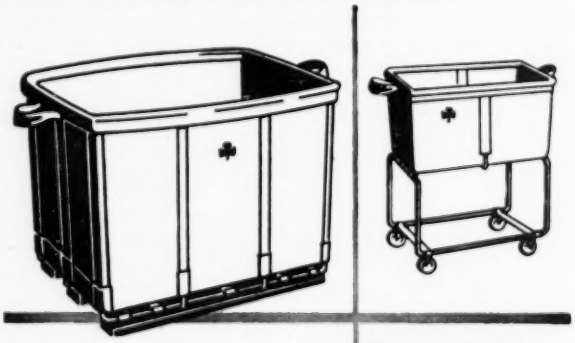

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Snow Hill (N. C.) Tape Co., Inc., recently chartered, will manufacture tapes, braids, and other narrow fabrics. J. M. Warren is head of the firm.

S. Stroock & Co. is expanding its quality control and research program, the effort being headed by Herbert C. Haller, formerly of Forstmann Woolen Co.

Stylbest Knitting Mills, Inc., has been chartered for the manufacture of outerwear. Sylvia Robinson, 103 Hawkstone St., Bronx, N. Y., is attorney and representative.

Talon, Inc., Meadville, Pa., will install a complete dyeing division at Hamden, Conn., to replace the branch mill there which will be discontinued when the new mill at Stanley, N. C., is completed.

The building formerly occupied by **Guilford Hosiery Mills** has been leased for its main knitting division by **Triangle Hosiery Co.,** manufacturers of men's half hose, golf and sport hose, and similar items. Dyeing and finishing operations will be carried out in the Triangle building from which the knitting machinery was moved.

Acquirement of the business, trade-name, and inventories of **F. Burkart Mfg. Co.,** St. Louis, Mo., was made by **Textron, Inc.,** Providence, R. I. recently. It will be operated in the future as a division of this company.

Triple Quality Hosiery Company, Inc., Hickory, N. C., has been incorporated to manufacture boys', misses' and men's socks. It previously operated under the name of Eckard Finishing Co.

Trimfit Hosiery Mill, 191 West Roosevelt Blvd., Philadelphia, Pa., seamless hosiery, has leased a building at 811 South Los Angeles St., Los Angeles, to be used for a factory branch.

The central rechecking department, fabric production division, **United Merchants & Manufacturers, Inc.,** was recently moved from New York City to Union, S. C., a more central location for the firm's various plants. The department is headed by Edward S. Bennett. At the Bath, S. C., mill, a course on "How Our Business System Operates" has been offered to all employees. It consists of the elements of the American business system, being concluded with the story behind the growth and development of United Merchants & Manufacturers.

United States Rubber Co. has in progress an expansion program at its Burlington, N. C., Lastex yarn plant, which is expected to increase the output nearly 50%. The firm has also announced the availability of a new vinyl outerwear material which is said to be waterproof, strong, and will remain pliable and comfortable at low temperatures. It is known as U. S. Elastic Naugahyde for outerwear.

Vaughn Knitting Co., Pottstown, Pa., has sold its plant to Kiwi Polish Co., and plans to re-establish its mill under the name **NuWeave Socks, Inc.,** at another location in the city for the manufacture of seamless hosiery for men, women, and children.

Recently chartered to manufacture cotton and other yarns was the **Yarn Throwing Corp.,** Scituate, R. I. John F. Quinn, 22 Arlington St., Pawtucket, R. I., is principal incorporator and representative.

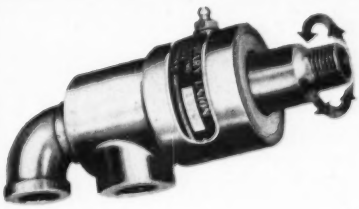
A one-story mill at Calais, Me., with about 20,000 sq ft floor space, is

What the TEXTILE MILLS are doing

under construction by **Ware (Mass.) Knitters, Inc.** It will replace the present unit at that town. Being distributed to employees, customers, stockholders, and friends of the firm is a picture calendar for 1954. It is made up of twelve pictures of scenes in Ware, and an aerial view of the town's center.

Real estate, machinery, equipment, and yarn stock of **Walther Manufacturing Co.,** Philadelphia, Pa., were recently sold at auction.

The new plant publication of **West Point (Ga.) Manufacturing Co.** and its subsidiaries has been named "The Westpointer." Winner of the prize for naming the paper was Elmer Smith, an employee at Lanett Bleachery and Dye Works. The **West Point Foundation, Inc.,** has given $150,000 to the Chambers County (Ala.) Board of Education to apply on the cost of the Fairfax Junior High School building now under construction. The



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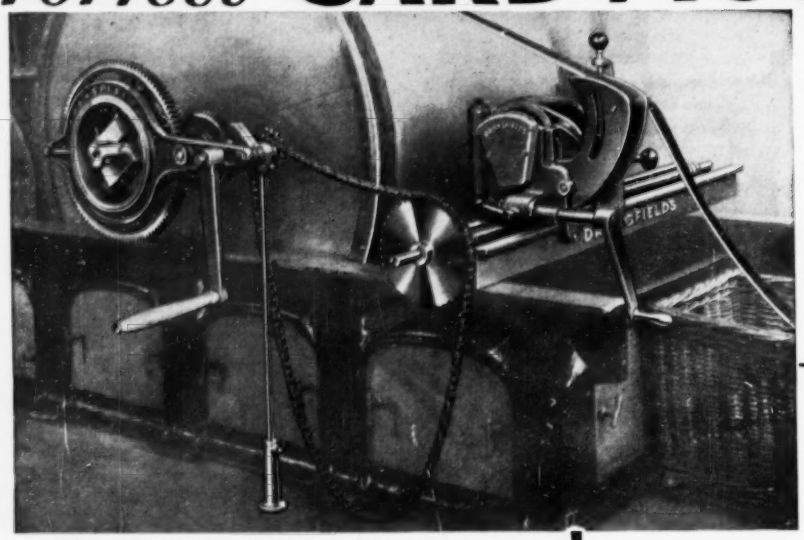

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Many textile mills have found that Wicaco Roller Bearing Spindles cost no more than ordinary ones, and reduce operating costs. We will design them to meet your particular requirements. Write today for quotations without obligation.

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The WICACO SPINDLE OILING MACHINE guarantees proper lubrication for all twisting spindles, flushes out the old oil and replaces it with fresh clean oil in one simple operation. Saves time, labor, power. Order yours today, or send for descriptive folder NOW.

WICACO

WICACO MACHINE CORPORATION
Designers and Manufacturers of Precision Machinery and Parts
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OTHER AGENTS in FOREIGN COUNTRIES

What the TEXTILE MILLS are doing

foundation also authorized $160,000 for a community center at Shawmut, Ala.

Yorkshire Worsted Mills, Inc., Lenni Mills, Pa., has sold its branch mill building at Chester, Pa., and operations at that plant have been discontinued.

A $1,000,000 textile mill is being built at Starr, S. C., and it is expected that the new plant will be ready to go into operation by March 1.

Attleboro Manufacturing Company has purchased the Delta Finishing Co. plant in Attleboro, Mass. Finishing of woolens, worsteds, and blends will be continued.

Lee Dyeing Company of Canada, Ltd., an affiliate of Lee Dyeing Company, Johnstown, N. Y., is operating in Verdun, Quebec, specializing in the commission dyeing of tricot fabrics.

A new concern was recently organized in Baltic, Conn., by W. A. Landry, treasurer of the Matson Mills, S. Glastonbury, Conn. Called **Walaine Mills, Inc.,** the firm will spin woolen yarns for Matson Mills but will be operated as a separate unit.

SUPPLIERS News

WHAT THEY ARE DOING

Roy C. Camp has been made southeastern district sales manager and Dan C. Jorgansen, special sales representative, for the southern area,

Mr. Camp Mr. Jorgansen

for the Acme Steel Products division of **Acme Steel Co.** Mr. Camp replaced Robert Lammers, transferred to Chicago.

The organic development center of the nitrogen division of **Allied Chemical & Dye Corp.** was opened at Hopewell, Va., recently. The plant will produce ethylene oxide, ethylene glycol, and other ethylene derivatives used in the manufacture of a wide variety of goods, including synthetic fibers.

The Buda Co., 72-year-old Harvey, Ill., firm, is now being operated by the **Allis-Chalmers Manufacturing Co.** It will be known as "The Buda Co., a division of Allis-Chalmers." William T. Havron is now sales representative at the Miami branch office of Allis-Chalmers.

Calvin A. Burton has been made general sales manager for **Alvey Conveyor Manufacturing Co.** He has been

Mr. Burton

with the conveyor industry for thirty years.

In a survey of 5,000 annual reports, conducted by "Financial World," **American Viscose Corp.** was judged as having the best report of the rayon and acetate fibers industry. This is the third time in ten years that Avisco has won this honor. The company has announced the opening

BOILER ROOM BLUES?

If your out-dated boiler room has you singing the blues, why not consider a modernization and renovation program to put it on an efficient basis?

McBurney makes the best boiler room equipment and service available to you, and has served the textile industry in this capacity since 1911. Give some thought to your boiler room and . . .

CALL McBURNEY!

McBURNEY is ready to serve you with these fine equipment lines: COPES-VULCAN BOILER CONTROLS, COPES FEEDWATER REGULATORS, VULCAN SOOT BLOWERS, McBURNEY UNDERFEED COAL STOKERS, AQUA ELECTRIC SCALE CONTROL, GAS & OIL BURNING EQUIPMENT.

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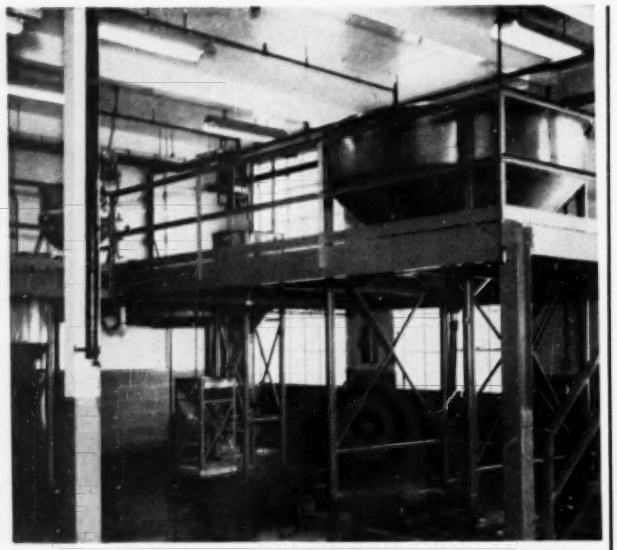
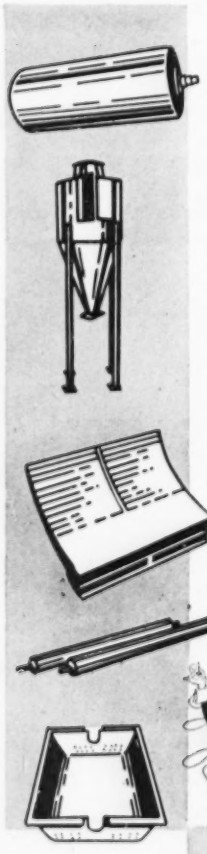


for economy it's STAINLESS STEEL



Down go maintenance and operational costs when you switch to stainless steel! Corrosion, wear and break-down resulting from them are eliminated by the use of this modern wonder metal . . . Consider replacing your old-fashioned hard to clean and maintain pressure vessels, acid tanks, dye vats or starch kettles with SIMS built stainless steel equipment.

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With one of the most modern and progressive metal working shops in the south, the technical "know-how" of SIMS craftsmen and the SIMS guarantee of quality products, you are assured of equipment built to your *exact* specifications.

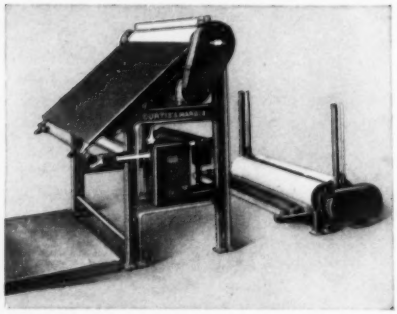
For Custom Tailoring of Stainless Steel . . . Call, wire or write today.

FABRICATORS SINCE 1928

Sims METAL WORKS

WEST POINT, GA.

GEARMOTOR DRIVEN INSPECTING MACHINE



With Lever Control
Type G Rolling Head Shown at Rear

The gearmotor drive control is entirely manual—by means of the short levers near the lower corners of the table. The cloth is stopped when these levers are horizontal as shown; it moves "forward" when these levers are raised, and moves in the "reverse" direction whenever they are lowered below the horizontal position. The gearmotor runs in either direction depending on the position of the short control levers, driving the draft roll without any clutch or reverse motion.

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Atlantic City, April 26-30

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Lazenby winders can be used profitably by all weave Mills weaving tire fabrics, conveyor belts, cotton duck and other heavy duty fabrics. Wherever cops of extreme diameter and length of maximum yardage and uniformity are needed, LAZENBY can fit your needs. Send us a small supply of your yarn and we'll wind and return with Test Wind Report and Catalogue.

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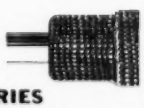
Strip Clean Instantly
Fit Any Sized Roll
Hug "Beat-Up" Rolls Tightly
No Seams—No Frayed Ends
Outlast Paper or Cloth Covers—3 times



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We also make: Knit Dye Tubing; Sheepskin and Cloth Clearers; Star Brand ★ Roller Varnish.

THE TEXTILE LABORATORIES
P. O. Box 1003 Telephone 5-2791 Gastonia, N. C.

SUPPLIERS News — WHAT THEY ARE DOING

of an office at 2304 First National Tower Building, Akron, Ohio. Cyril Sumner, Jr., is in charge of the office, under Frank T. Williams, manager of the rayon tire yarn sales division. Francis E. Price has been assigned to the Charlotte, N. C., office as a representative for textile chemical sales in the southern territory. The Sylvania Division has employed Harry G. Alwine as a sales representative in the Philadelphia area. He was previously with Pak-Rapid, Inc. Sylvania's Dwight H. Rollins has been transferred from Philadelphia to the New York sales office.

Joseph Lind has opened an office for the **Burdett Manufacturing Co.** of Chicago at 53 Park Place, New York 7, N. Y., and will represent the firm in the sales of combustion systems and complete finishing systems in metropolitan New York and in Connecticut and New Jersey. He was previously with Carbomatic Corp.

The Calco Chemical division of **American Cyanamid Co.** was recently presented the "Award of Merit" for public relations communications by the New Jersey Manufacturers Association. The Textile Resin depart-

Mr. Corbett

ment of the firm recently opened a branch application laboratory in Charlotte, N. C., under the direction of William F. Corbett. The laboratory is completely equipped to do standard laboratory applications for evaluation.

Clark Equipment Co. has revamped its dealer organization in the South to handle its recently acquired Ross straddle carriers and fork truck lines. Dealers affected are Industrial Truck Sales and Service Co., Greensboro, N. C.; Lukas Equipment Co., Columbia, S. C.; M-H Equipment Co., Birmingham, Ala.; Dempster Bros., Inc., Knoxville, Tenn.; Whitmore Industrial Trucks, Tampa, and Equip Co. Inc., Miami, Fla. The firm has also announced that it has established a low-cost equipment-leasing program to operate through its dealers on a national basis. It is being offered to those who have need for a low-cost leasing arrangement.

A two-platoon system of sales managership has been established by **Clayton Manufacturing Co.**, El Monte, Calif. J. J. Billman has been named western sales manager, and H. M. Kirkby has taken over sales direction for the eastern division.

Harris Ford has joined **Coleman Co., Inc.,** Greenville, S. C., as representative in South Carolina. He was formerly in the engineering department of J. P. Stevens & Co., Inc.

J. Edgar Glass has been promoted to president and general manager of **The Colson Corp.** He succeeds Neely Powers, who remains a director of the firm. Robert A. Pritzker, formerly with The Essex-Graham Corp., is now vice-president in charge of manufacturing.

C. L. Fell has been promoted from Detroit division manager to sales manager of the **American MonoRail Co.'s** textile division. He will supervise sales of handling and automatic cleaning systems in the Atlanta, Charlotte, and Greenville districts. British MonoRail Ltd., Manchester, England, is now engineering, manu-

Sir John Dodd of British Mono-Rail, J. P. Lawrence, president of American MonoRail, and B. C. Flynn, British counsel.

facturing, and selling all types of materials handling equipment in the American MonoRail Co. product line. Sir John Dodd will manage these activities in all parts of the world except North and South America.

The **Crossett Chemical Co.** has merged with two sister companies—the Crossett Lumber Co. and the

U.S. ACME
HORIZONTAL SPOOLER
a simple twist of the wrist sets your production speed!
cleans, winds and oils in one high speed operation
A newly improved, fully modern production unit for accurate, high speed winding of all types of yarn (including fine denier synthetics) on 6 to 24-oz. bobbins. Spindleless construction. Capable of winding from 250 to 750 yards per minute.

CLEANING AND OILING DEVICE CAN BE EASILY BY-PASSED WHEN NOT REQUIRED
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Nearly 4000 TYPES of CASTERS & WHEELS

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DEMAND DARNELL CASTERS & WHEELS

Darnell Casters and Wheels start cutting costs from the very first day of installation. Easy rolling and swivelling increase employee efficiency, save floors and help add to production. With over 4000 types of casters and wheels to select from you can specify the exact model to meet your requirements.

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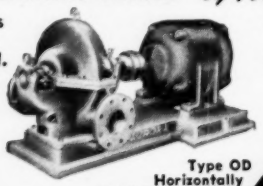
we recommend PUMPS *"by Aurora"*

Capacities to 4,000 G.P.M.

Heads to 300 Ft.



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Type OD Horizontally Split Case, Double Suction, Single Stage Centrifugal Pump

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For Every Purpose

The Type OD PUMPS — for general water supply for municipalities, industries, office buildings, institutions — also — for handling liquids, chemical solutions, oils, etc. in industry.

APCO TURBINE-TYPE PUMPS — ideal for "1001" duties where small capacities and high heads predominate. Get acquainted.

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DIVISION OF THE NEW YORK AIR BRAKE COMPANY
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TEXTILE BRUSHES for EVERY NEED

Solve all your textile brush problems by one stroke with the complete service we render for all mill operations. Gastonia Brushes are always dependable.

LOOM DUSTER
Solid back construction,

Five inch brush—hair—staple set, trimmed 2&3/4". Workmanship and Materials Guaranteed. Request Catalogue.

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GASTONIA, N. C.

Industrial Engineers

SPECIALIZING IN TEXTILES FOR OVER ONE-THIRD OF A CENTURY

PAYROLL CONTROLS COST SYSTEMS
SPECIAL REPORTS WORK LOAD STUDIES
COST REDUCTION REPORTS

Ralph E. Loper Co.

GREENVILLE, S. C. FALL RIVER, MASS.

SUPPLIERS News
WHAT THEY ARE DOING

Crossett Timber and Development Co. The new organization will be known as The Crossett Co., with the Crossett Chemical Co. being recognized as a division of the parent company.

C. R. Daniels, Inc., has announced election of the following officials: A. L. Hammond, president; E. A. Trumpbour, vice-president; F. J. Trumpbour, Jr., vice-president; Elizabeth Trumpbour, secretary; and E. A. Trumpbour, Jr., treasurer.

H. W. Butterworth & Sons Co. has announced increased emphasis on research into textile finishing techniques, and has offered the services of its engineers in the development of improved techniques in drying,

Mr. Butterworth

bleaching, dyeing, and finishing. Added to the staff of the southern office of the company in Charlotte, N. C., are C. Eugene Hunter and James E. Butterworth, Jr. They were previously employed in the home office.

Diamond Alkali Co. has appointed Frank Grilli to the New York branch sales office staff. He was previously with Innis, Speiden & Co.

Alexander Moore has joined the development and service department of **Emery Industries, Inc.,** after four

Mr. Moore

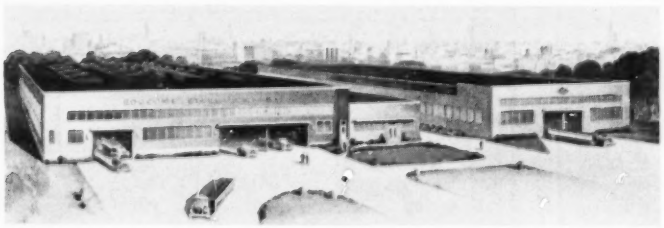
years with the firm in various technical capacities.

Julian T. Pool has been made sales representative for **W. D. Dodenhoff Co.** for the states of Georgia, Alabama, and Mississippi. His headquarters will be in LaGrange, Ga.

The **Saran Yarns Co.,** owned jointly by Dow Chemical Co. and The National Plastic Products Co., has announced the election of Donald L. Gibb as a director. Mr. Gibb is manager of plastics sales for Dow.

E. I. Du Pont de Nemours & Co., Inc., has announced that Penn R. Lindsay has been named to the new position of assistant manager of the electrochemical department's district sales office in Cincinnati.

A one-story building, to be erected at Norwood, Mass., will be leased by **Fabric Research Laboratories, Inc.,** for a new laboratory and administra-



Edgcomb Steel Enlarges Charlotte Plant

Edgcomb Steel Co. has enlarged its warehouse facilities in Charlotte, N. C., with the erection of a new building, constructed entirely of aluminum, designed along modernistic architectural lines. Frank F. Rose is general manager.

Call MILTON for dependable BEAMS

Light Metal featuring continuous welded construction

NYLON & RUBBER YARN BEAMS

FORGED HEADS
RIGID BARRELS

Forged heat-treated aluminum alloy heads and extra heavy wall barrels designed to withstand extreme pressures of monofilament; fine denier; low-turn nylon; and rubber yarns. 13¾" and 21" diameter heads.

SECTION BEAMS

Adaptable to all makes of warpers. Cast aluminum alloy heads and extruded aluminum barrels cannot shrink, swell, splinter or distort.

STEEL BARREL
WARP BEAMS
for BROAD, NARROW FABRIC, RIBBON, VELVET AND CARPET LOOMS

BROADLOOM BEAMS

for C & K and Draper Looms

Shown above is Milton's stud construction (also made with cast iron hubs).

RIBBON LOOM BEAMS

Adjustable head with fixed shaft, or fixed head with removable shaft.

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DESIGNERS • ENGINEERS • MANUFACTURERS
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SINGLETON WILL HELP SOLVE YOUR APRON PROBLEMS

Singleton's New-Type, Resin-Reinforced Draft Horse Leather Aprons are available either Endless or Open. These improved aprons now have more than 400% greater resistance to abrasion than ever before.

The aprons shown above, Singleton's Resin-treated Leather Aprons, are giving better and longer **effective** yarn control than any other aprons on the American market. They are the **ultimate** in control of fibers during the drafting process.

Whatever brand of aprons you are now using, whether synthetic or leather . . . and regardless of your conditions of humidity . . . whether it's roving or spinning or both you're interested in . . . Singleton Resin-treated Leather Aprons will do the job better, at lower long-run cost.

We'll prove what we say. We'll give you the names of mills you know for reference. We'll demonstrate in your own mill that Singleton Resin-treated Leather Aprons are better for your purpose. Ask us today to show you what we mean.

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BLANCO, TEXAS

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For further details of this outstanding offer, see advertisement on page 19.

COTTON YARNS

Knitting and Warp
4's to 30's — Single and Ply
Uniformity
Carded — Combed

COMER-AVONDALE MILLS, INC.
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AVONDALE MILLS
Sylacauga, Alabama

COWIKEE MILLS
Eufaula, Alabama

SUPPLIERS News
WHAT THEY ARE DOING

tion building.

Edward C. Connor is now vice-president and director of sales of **Foster Machine Co.** He has been with the firm since 1935.

A branch office in Amarillo, Texas, has been established by **The Foxboro Co.** It is located at 1117 La Paloma St., and will be headed by D. T. McElligott.

A display coach of **General Electric** specialty instruments began a year's tour of the United States recently. It is scheduled to make more than 250 stops and to be inspected by more than 15,000 instrument users during its tour.

Daniel Epstein has joined **Hart Products Corp.** as reserach chemist in the fields of textile, leather, and paper specialties.

Hooker Electrochemical Co. has started shipping liquid caustic soda and liquid chlorine from its new plant at Montague, Mich.

A new plant for manufacture of a nylon-type staple fiber is being built by **Industrial Rayon Corp.** near its rayon yarn and knitted fabric plant in Covington, Va.

Edward A. Mayer, vice-president, has been placed in charge of **William Iselin & Co., Inc.'s** midwestern operations, with headquarters at Grand Rapids, Mich. He was also elected to membership on the board of directors.

Johnson Service Co. has completed construction of new buildings for its Detroit and Greensboro branches, as part of the firm's continued expansion program. Other branches have been opened at Champaign, Ill., Lubbock, Tex., and Miami and Pensacola, Fla. In charge of the Champaign office is R. F. Bruning; Charles J. Selasky is now at Lubbock; James E. Beard transfers from Jacksonville to Miami; and Walter Williams, formerly in Birmingham, has moved to Pensacola.

George L. Smead, with **Libbey-Owens-Ford Glass Co.** for twenty years, is now manager of sales to the reinforced plastics industry. James E. Baskin has been made district sales manager of a new office to be established in Cincinnati at 912 Enquirer Building.

The firm of **C. A. Litzler Co., Inc.,** consulting engineers and designers of equipment and systems for the processing of webs and monofilaments, has been formed and is located at 11621 Detroit Ave., Cleveland, Ohio. C. A. Litzler is president.

Talcott M. Banks, Jr., has been elected to the board of directors of **H. F. Livermore Corp.**

W. J. Howell, formerly with A. M. Smyre Manufacturing Co., is now

Mr. Howell

with **The Marquette Metal Products Co.** as a sales and service engineer for Marquette roller bearing spindles.

Carl R. Dolmetsch recently joined **Mathieson Chemical Corp.** in an executive capacity. Mr. Dolmetsch had been manager of viscose plant operations in Celanese Corp. of America's foreign service division.

Monsanto Chemical Co. has established a two-year graduate fellowship at the Institute of Textile Technology. The grant, amounting to $5,000, is for a course of studies in textile chemistry leading to a master of science degree in textile technology. Robert S. Kenyon, a graduate of Bradford Durfee Technical Institute, was selected to study under this fellowship.

The industrial division of **Minneapolis-Honeywell Regulator Co.** has again announced plans for industrial maintenance and repair courses, the first of which will begin January 4. These are available to customers of the company.

A southern division, with headquarters in Atlanta, Ga., has been established by the **National Carloading Corp.** Mitchell B. Moore has been named a vice-president and placed in charge of the new division, aided by Hugh E. Cooney, an assistant vice-

AT YOUR SERVICE

SPECIALIZED ENGINEERING

SPECIALIZED EXPERIENCE

SPECIALIZED MACHINERY FOR TWISTING BUNCHING STRANDING FORMING AND LAYING IN THE TEXTILE • WIRE CORDAGE AND MANY OTHER INDUSTRIES

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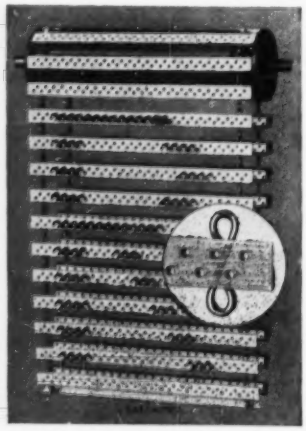
Another Fine Rice Dobby Product

IMPROVED DOBBY BARS

The Improved bar with clear peg holes and eyes that will not twist. Made of thoroughly air dried stock.



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Leather and Fibre Adjusting Strap

Special Braided Loom Cord

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HOW TO REMOVE SLIME FROM HUMIDIFIERS

This handy guide to efficient air conditioning maintenance tells you how to

- Descale condensers
- Remove slime from humidifiers
- Clean finned coils of air washers
- Clean aluminum plates and screens
- Clean glass filter screens
- Descale cold diffusers

FREE handbook yours on request. Ask your local Oakite Technical Service Representative, or write Oakite Products, Inc., 26C Rector St., New York 6, N. Y.

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Now! Precision Matched Sets

CORDUROY CUTTING KNIVES

- Supplied in matched sets of 330 knives.
- Precision ground double-bevel cutting edge.
- Finest alloy steel, correctly tempered for long life.
- Accurate to ± .001 tolerance.

ALSO AVAILABLE UNGROUND.

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The Nation's largest manufacturer of Sizing Compounds, Gums, Waxes and other kindred products for all warp yarns.

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TEXTILE APRON COMPANY

East Point, Georgia

Hugh Williams & Company—Toronto, Canada

PRECISION BUILT

SUPPLIERS News — WHAT THEY ARE DOING

president of the firm.

National Starch Products Inc. has moved to larger quarters at 311-401 Foundry St. N.W., Atlanta, Ga.

Harry C. Hackett has been promoted to staff sales manager and James O. Otis to sales manager of **National Vulcanized Fibre Co.**

New York & New Jersey Lubricant Co. has appointed Harry W. Baker as sales representative in the Bronx and Queens boroughs of New York. He was formerly with the Coventry Machine and Tool Co.

Nopco Chemical Co. has purchased a controlling interest in **Yocum Faust, Ltd.,** of London, Ontario. The subsidiary company will operate under its original name. Robert McClellan, mid-west manager of Nopco since 1942, has been appointed vice-president and general manager of Yocum.

John E. Larkin, previously with Bradford Dyeing Assoc., Bradford, R. I., has been appointed technical sales representative for **Onyx Oil & Chemical Co.,** covering western New Eng-

Mr. Larkin

land and upper New York state. He replaces Malcolm P. Coulman.

Paul J. Lurk, formerly with American Cyanamid Co., has been made general manager of the **Peerless Color Co., Inc.,** Plainfield, N. J.

Polymer Corp. of Pennsylvania has opened a midwestern sales office and warehouse in Chicago. Ralph Blanchard, former sales representative, has been made midwestern sales manager. Newly appointed sales representative in Missouri, Kansas, and Nebraska is B. C. MacDonald and Co. of St. Louis.

The William Powell Co. of Cincinnati, O., has announced the appointments of Lee E. Cearnal and Carl L. Noe as sales representatives of Powell valves. Mr. Cearnal will service the industry in the southern part of Georgia and South Carolina, and all of Florida except the area west of the Appalachicola River. Southern Alabama, southern Mississippi, and the western "pan handle" of Florida will be Mr. Noe's territory.

Thomas P. Caldwell has joined the fine chemicals division of **Pittsburgh Coke & Chemical Co.,** as dyestuff sales representative in the Green-

Mr. Caldwell

ville, S. C., area. During the past seven years he has been with the F. H. Ross Co.

Lee E. Cuckler has been made manager of the engineering department at **Fielden Instruments Division, Robertshaw-Fulton Controls Corp.** Before joining Fielden, Mr. Cuckler was with the Brown Instrument division, Minneapolis-Honeywell Regulator Co.

Robinette Research Laboratories, Inc., 16 East Lancaster Ave., Ardmore, Pa., was recently organized with Hillary Robinette, Jr., as president. George J. Volz is vice-president and secretary. The new firm is expected to provide production and process development for the textile, leather, paper, and chemical industries.

Dr. F. Otto Haas was recently elected executive vice-president of **Rohm & Haas Co.**

J. O. Ross Enginering Corp. recently held its annual dinner for members of the firm's twenty-five year club and their wives. A total of 32 employees have been with Ross twenty-five or more years.

Howard R. Waller, Jr., previously with United Merchants & Manufacturers, Inc., has joined **Sandoz**

INDUSCO

Metal Core Brushes

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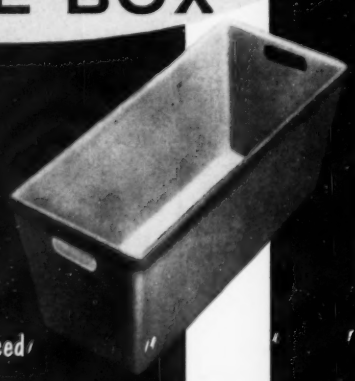

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SUPPLIERS & News
WHAT THEY ARE DOING

Chemical Works, Inc., as assistant technical director of the dyestuff division.

Sarco Co., Inc., has established a sales office at 35 Elmira St., San Francisco, Calif. J. S. Spear, sales manager of the new office, has been with the company for over 15 years, serving as sales engineer in the New York territory.

A gift of 100 sewing machines was recently presented by the **Singer Sewing Machine Co.** to the American-Korean Foundation. They are being used to turn millions of yards of textiles, donated by American firms, into winter garments for war-destitute South Koreans.

Morris S. Rosenthal has resigned as president and director of **Stein, Hall & Co., Inc.** Lawrence Gussman has succeeded him as president; he is also president of The Stein-Davies Co., a manufacturing subsidiary of Stein Hall. * * * For outstanding services on behalf of international trade and work in promoting better relations between the United States and the Netherlands, Cecil H. Coryat, vice-president and director, has been awarded the decoration of Officer in the Order of Orange Nassau by Her Majesty, Queen Juliana, of the Netherlands. * * * E. Phillip Lavoie has joined the Stein Hall & Co.'s Charlotte sales staff as a sales technician. Mr. Lavoie was formerly assistant superintendent of finishing at Erwin Mills, Inc.

Textile Machine Works have launched an advertising campaign to convince consumers of the advantages of full-fashioned stockings. Newspaper ads are signed "Hosiery Fashions" rather than carrying the name of the company. Readers are informed about fashion marks and seam in the hose, also about the dropping of needles to narrow the flat fabric to conform to leg shape. The newly opened Dutch plant of the company is prepared to assemble machines from parts made in Reading, Pa., though it can also be used to manufacture complete machines.

Don C. O'Hair, Charlotte, N. C., has been made representative for **Textile Mill Suppliers,** Columbus, Ga., in the Carolinas and Virginia.

H. T. Prince is now manager of the industrial division of **Tower Iron Works.**

John H. McCormick was recently made district sales manager of the textile fibers department, Carbide and Carbon Chemicals Co., a division of **Union Carbide and Carbon Corp.**

Robert H. Wagner has been appointed general application engineering manager of the **Westinghouse Electric Corp.'s** elevator division. He succeeds Edward B. Dawson, now division engineering manager. In the apparatus division, two appointments have been made in the new engineering and service department: Maynard B. Wyman was named manager, and H. C. Coleman, assistant manager. Both have been with the firm for a number of years.

Curt Eubel of Chicago, formerly with the pigments division of United Wallpaper Co., is now midwestern

Mr. Eubel

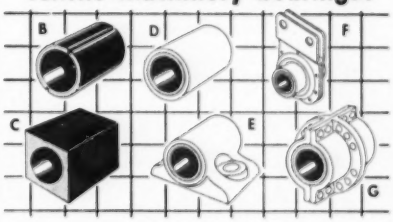
representative for **Refined Products Corp.,** Lyndhurst, N. J.

Crawford H. Garren and Jack W. Rose have been appointed technical sales representatives of the **A. E. Staley Manufacturing Co.** to work with the corrugating and textile industries. Before joining the company Mr. Garren was sales representative with Stein, Hall and Co.; Mr. Rose was employed by the Bio Process Co.

Ground has been broken for the new administrative headquarters of **Atlas Powder Company** to be located in Wilmington, Del., at Concord Pike and New Murphy Rd. The new building will house present general office employees and allow for a fifty per cent future expansion in the administrative staff. * * * Recently named to head the Chicago chemical district sales office is Howard W. Dellard, previously technical sales representative in the area. Mr. Dellard succeeds

GRAPHALLOY
BUSHINGS
OPERATE DRY or SUBMERGED

The IDEAL textile machinery bearings!



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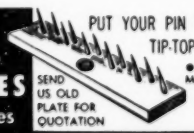
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SUPPLIERS News
WHAT THEY ARE DOING

Harry B. Paul, transferred to direct Wilmington, Del., chemical district sales. * * * William H. Erwin has been promoted to the position of international division director of the company, and is succeeded in his previous capacity by Mr. Paul.

Edmund J. Gernt has joined **The Chemstrand Corporation's** research and development department. Prior to this appointment, Mr. Gernt was general manager of manufacturing and sales with the Schwarzenbach Huber Company.

Recent promotions at **Allied Chemical & Dye Corporation,** National Aniline Division, Intermediate Sales, are Leon W. Seigle, manager, and Fred B. Johnson, assistant manager.

Samuel K. George, III, was recently appointed sales representative for synthetic knitting yarns in the textile division of **United States Rubber Co.'s** New York office. F. W. Nystrom was promoted to the position of sales representative in the industrial yarns and fabrics sales department.

Newly appointed agent in the southeast for **Rodney Hunt Machine Co.'s** Process Equipment Division is

Mr. Davis

W. C. Davis & Associates, Atlanta, Ga.

Harry M. Martin, formerly with Enterprise Dye Works, has joined the sales staff of **Woonsocket Color & Chemical Co.**

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a Textile Expert
for
less than
$2.00 a Year!
See page 172
for Details.

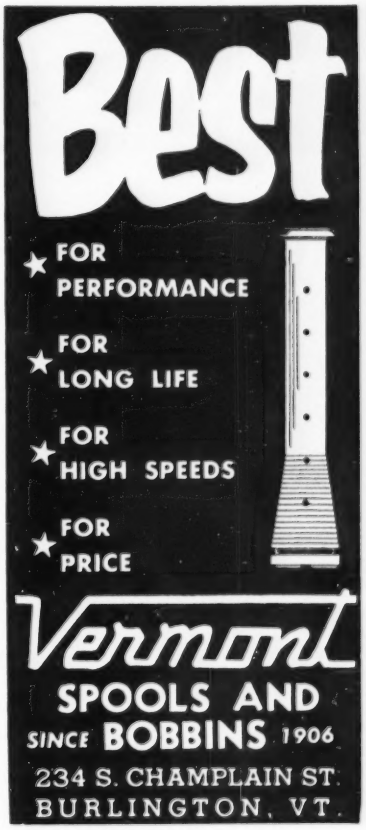
Executive Views the News
(Continued from page 79)

what the New Year holds in store for the textile industry, but perhaps it is better that we cannot. The passing months would become awfully dull if there were no surprises.

At any rate, a few issues ago (TEXTILE INDUSTRIES, November 1953) we did tell you what we thought Congress might have in store for the textile industry, and what each of us as textile men, or as textile suppliers, should and could do to help the cause. We mentioned foreign trade, Taft-Hartley, Walsh-Healey, set-asides, renegotiation, taxation, the farm problem, and perhaps one or two other possibilities, and we hope you will keep these in mind as you follow congressional activities this month and for the next few months.

It has been said before, but it needs to be said many times more: If the conservative, middle-of-the-road people fail in this Administration—they may not have another chance.

With these rather somber words, we wish for each of you a Happy New Year, complete with good health, contentment, and the satisfaction of a job well done.



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ADVERTISER'S INDEX

A

Abbott Machine Co. ..... *
Advertising Council, Inc. ..... *
Aldrich Machine Works 74
Alemite Division 29
Allen Son's Co., Wm. ..... *
Allis Company, Louis 37
Allis-Chalmers Mfg. Co. ..... *
Althouse Chemical Co. ..... *
Aluminum Co. of America 140
Alvey Conveyor Mfg. Co. ..... *
Amalgamated Chemical Corp. 136
American Air Filter Co. ..... *
American Aniline Products, Inc. 163
American Associated Consultants, Inc. 175
American & Efird Mills, Inc. ..... *
American Lava Corp. 45
American Moistening Co. 7
American Monorail Co., Inc. 130
American Paper Tube Co. 72
American Red Cross ..... *
American Steel & Wire Co. ..... *
American Viscose Corp. ..... *
Anheuser-Busch, Inc. ..... *
Arkansas Company, Inc. ..... *
Armstrong Cork Co. 40, 41
Arnold, Hoffman & Co., Inc. ..... *
Ashworth Bros. Inc. 151, 152, 153, 154
Askania Regulator Co. ..... *
Atkinson Haserick & Co. ..... *
Atlanta Belting Co. ..... *
Atlanta Paper Co. ..... *
Atlantic Steel Co. 38
Aurora Pump Co. 204

B

Bachmann Uxbridge Worsted Corp. ..... *
Bahnson Co. ..... *
Barber-Colman (Textile Div.) 18
Barnes Textile Associates, Inc. ..... *
Best & Co., Edward H. ..... *
Bijur Lubricating Co. 20
Binney & Smith, Inc. ..... *
Birch Brothers, Inc. ..... *
Bond Co., Charles ..... *
Booth Co., Benjamin ..... *
Borne, Scrymser Co. ..... *
Brush Electronics Corp. ..... *
Buffalo Electro-Chemical Co., Inc. 2
Buffalo Forge Co. ..... *
Buffalo Pumps, Inc. 54
Burlington Engineering Co., Inc. 59
Butterworth & Sons, Inc., H. W. 65

C

Calco Chemical Division 35
Carborundum Co. ..... *
Carrier Corporation 148
Carter, Inc., A. B. 196
Celanese Corp. of America & Subsidiary Cos. 56, 57
Centrif Air Mach. Co. ..... *
Cen-Tennial Cotton Gin Co. 9
Chrysler Corp., Amplex Div. ..... *
Ciba Co., Inc. ..... *
Clark Equipment Co. (Industrial Truck Division) ..... *
Classified Ads 212
Clayton Co., J. M. ..... *
Cleveland Crane & Engineering Co. 64
Clinton Foods Inc. 176
Cocker Mach. & Fdry. Co. 144
Cole Co., R. D. 194
Cole Engineering Corporation ..... *
Coleman Company, Inc. 208
Colson Corporation 179
Columbia-Geneva Steel ..... *
Comer-Avondale Mills, Inc. 206
Comer Machinery Co. 30
Commercial Factors Corp. ..... *
Continental-Diamond Fibre Co. ..... *
Continental Gin Company 142
Corn Products Sales Co. ..... *
Courtaulds, Inc. 134, 135
Crabb & Co., Wm. ..... *
Crane Co. ..... *
Crompton & Knowles Loom Works 11
Crompton-Richmond Factoring Division 178
Crossett Chemical Co. ..... *
Curlator Corp. (Textile Div.) 55
Curtis & Marble Machine Co. 202
Cutler-Hammer, Inc. ..... *

D

Darnell Corp., Ltd. 204
Dary Ring Traveler Co. 198
Dayton Rubber Mfg. Co. 14, 15
Dexter Chemical Corp. 80
Diehl Mfg. Co. ..... Second Cover
Dinkler Hotels ..... *
Dixie Leather Corp. ..... *
Dodge Mfg. Corp. ..... *
Dommerich & Co., L. F. ..... *
Dow Corning Corp. 67
Draper Corporation 1
Dronsfield Bros. Ltd. 200
Du Pont de Nemours & Co., Inc., E. I. (Dyestuff Div.) ..... *
Du Pont de Nemours & Co., Inc., E. I. (Electrochemicals Dept.) ..... *
Du Pont de Nemours & Co., Inc., E. I. (Finishes Div.) ..... *
Du Pont de Nemours & Co., Inc., E. I. (Plastics Division) ..... *
Du Pont de Nemours & Co., Inc., E. I. (Textile Fibers) ..... *

E

Economy Baler Co. 210
Emery Industries, Inc. 31
Engineered Plastics, Inc. 28
Eriez Mfg. Co. ..... *
Exact Weight Scale Co. 192
Excel Textile Supply Co. ..... *

F

Fafnir Bearing Co. ..... *
Ferguson Gear Co. 206
Fiber Controls Corporation 210
Fidelity Machine Co. 22
Fielden Instrument Division 42
Finnell Systems, Inc. ..... *
Fletcher Works ..... *
Foster Machine Co. 19
Foxboro Company ..... *
Franklin Process Co. 17

G

Gardner & Sons, Oscar W. 177
Gaston County Dyeing Machine Co. ..... *
Gastonia Brush Co. 204
Gastonia Roller, Flyer & Spindle Co. ..... *
Gastonia Textile Sheet Metal Works 194
Gates Rubber Co. ..... *
Gaylord Container Corp. 76
General Dyestuff Corp. ..... *
General Dyestuff Corp. (Antara Div.) 181
General Electric Co. 68, 69
General Radio Co. ..... *
Gladwin Plastics, Inc. 210
Graphite Metallizing Corp. 211
Graton & Knight Co. ..... *
Grinnell Company, Inc. ..... *
Gulf Oil Corp. 5

H

Hart Products Corp. ..... *
Haskell-Dawes Machine Co. 207
Hayes Industries, Inc. ..... *
Hayssen Mfg. Company ..... *
Herr Mfg. Company 33
Holt Hardwood Co. ..... *
Holyoke Machine Co. 66
Houghton & Co., Inc., E. F. ..... *
Howard Bros. Mfg. Co. 166
Hubinger Co. ..... *
Hunt Loom & Machine Works, Inc. 158
Hunter Machine Co., James 34
Hyatt Bearing Division 23
Hyster Company 61

I

Ideal Industries, Inc. 138
Ideal Mach. Shops ..... *
Industrial Brush Company 209
Industrial Heat Engineering Co. 180
International Salt Co., Inc. ..... *

J

Jacobs Northern Div., E. H. ..... Front Cover
Jenkins Metal Shops, Inc. ..... *
Jenkins Reneedling Co., Inc. 210
Jenkins' Sons, Inc., M. W. 8
Johnson Bronze Co. ..... *
Johnson Corp. 185
Johnson Machine Works, Chas. B. 187
Johnson Service Co. ..... *

K

Kali Mfg. Co. ..... *
Keever Starch Co. 164
Keystone View Co. ..... *
Kidde & Co., Inc., Walter 62

L

Lane & Bros. Inc., W. T. 172
Laurel Soap Mfg. Co. ..... *

ADVERTISER'S INDEX

Lawlor Co., S. C. ..... *
Lazenby & Co., F. A. 202
Lee Co., L. A. 198
Lestershire Spool & Mfg. Co. ..... *
Livermore Corp., H. F. 53
Lockwood Greene Engineers ..... *
Logan Co. 12
Logemann Brothers Co. ..... *
Loper Co., Ralph E. 204

M

M-B Products ..... *
Manton-Gaulin Mfg. Co., Inc. ..... *
Maple Flooring Mfrs. Assn. ..... *
Marquette Metal Products Co. 70
Marshall & Williams Corp. 196
Mason-Neilan Regulator Co. ..... *
McBurney Stoker & Equip. Co. 201
McKiernan-Terry Corp. ..... *
Meadows Mfg. Co. 51
Meese, Inc. 198
Merrow Machine Co. 186
Miller Co., The 213
Miller Motor Co. ..... *
Milton Machine Works 205
Momar, Inc. 188
Monsanto Chemical Co. ..... *
Monticello Bobbin Co. ..... *
Mt. Hope Machinery Co. 160

N

Naugatuck Chemicals Div. 36
Nash Company J. M. ..... *
National Ring Traveler Co. ..... *
National Tube Co. ..... *
New Departure Div. 132
New England Bobbin & Shuttle Co. ..... *
New York & New Jersey Lubricant Co. ..... *
North, Inc. Frank G. 208

O

Oakite Products, Inc. 208
Onyx Oil & Chemical Co. ..... *
Orr Felt & Blanket Co., The 195

P

Parks-Cramer Co. 170
Penick & Ford, Ltd., Inc. 197
Perfecting Service Company 199
Perkins & Sons, Inc., B. F. 168
Permutit Co. ..... *
Pfister Chemical Works ..... *
Pick Mfg. Co. ..... *
Pittsburgh Corning Corp. ..... *
Platt Freres, J. W. & H. 24
Pneumafil Corporation ..... *
Powell Valves ..... *
Precision Gear & Mach. Co. ..... *
Proctor & Gamble Distributing Co. ..... *
Proctor & Schwartz, Inc. 48
Product Sales, Inc. ..... *

R

Ragan Ring Co. ..... *
Red-Ray Mfg. Co. ..... *
Refined Products Corp. ..... *
Reiner, Inc., Robert ..... *
Reliance Electric & Eng. Co. ..... *
Rhoads & Sons, J. E. ..... *
Rice Dobby Chain Co. 208
Richards-Wilcox Mfg. Co. ..... *
Ridge Tool Co. 10
Riggs & Lombard, Inc. ..... *
Robbins & Myers, Inc. 174
Robert & Co., Associates, Inc. ..... *
Rohm & Haas Co. ..... *
Ross Engr. Corp., J. O. ..... *
Roy & Son Co., B. S. ..... *
Royce Chemical Co. ..... Back Cover
Russell Mfg. Co. ..... *

S

Saco-Lowell Shops 58
Sandoz Chemical Works 25
Sarco Company, Inc. 49
Sargents Sons Corp., C. G. ..... *
Scherr Co., Inc., Geo. ..... *
Scholler Bros., Inc. ..... *
Scott Testers, Inc. ..... *
Seydel-Woolley & Co. 84
Simco Company ..... *
Sims Sheet Metal Works 202
Sinclair Refining Co., Inc. ..... *
Singleton & Sons, Russell A. 206
Sipp-Eastwood Corp. ..... *
Sirrine & Co., J. E. ..... *
Smith, Drum & Company 156
Solvay Process Division, The Allied Chemical & Dye Corp. ..... *
Sonoco Products Co. 63
Southern Shuttles Div. ..... *
Southern Sizing Co. ..... *
Southern States Equip. Corp. 216
Specialty Hardwood Co. ..... *
Stahmer Shoe Co. ..... *
Staley Mfg. Co., A. ..... *
Standard Card Clothing Co. ..... *
Standard Chemical Products, Inc. 39
Standard Oil Company, Inc. 60
Standard Pressed Steel Co. 188
Steel Heddle Mfg. Co. ..... *
Stephens Adamson Mfg. Co. 78
Stewart-Warner Corp. 29
Sun Oil Co. ..... *
Superior Tube Co. ..... *
Supreme Knitting Machine Co. 52
Swift & Co. ..... *
Synthane Corp. ..... *

T

Talcott, Inc., James ..... *
Taylor-Stiles & Co. ..... *
Tennant Co., G. H. 44
Tennessee Coal, Iron and Railroad Co. ..... *
Tennessee Corp. 192
Terrell Co. ..... *
Texas Co. ..... *
Textile Apron Co. 208
Textile Banking Co., Inc. 21
Textile Industries 6, 172, 206, 213
Textile Laboratories 202
Textile Machine Works 26, 27, 86
Textile Paper Products, Inc. 4
Textile Shield Co., Inc. 193
Textile Shops ..... *
Thomaston Mills ..... *
Tidewater Associated Oil Co. ..... *
Todd-Long Picker Apron Co. ..... *
Toledo Scale Co. 16
Tool Service Engineering Co. 190
Torrington Co.
(Latch & Spring Beard Needles) 43
(Needle Bearings) ..... *
Tower Iron Works ..... *
Treasury Department ..... *
Trico Fuse Mfg. Co. ..... *
Trust Company of Georgia 189
Turbo Machine Co. ..... *
Tubular Textile Machinery Corp. ..... *

U

U. S. Ring Traveler Co. 210
U. S. Steel Corp. ..... *
U. S. Textile Mach. Co. 203
United Elastic Corporation ..... *
United States Rubber Co. 50
United States Rubber Co.
(Naugatuck Chemicals Div.) 36
Universal Winding Co. ..... *
Uster Corporation ..... *

V

Van Vlaanderen Co. ..... *
Veeder Root, Inc. ..... Third Cover
Vermont Spool & Bobbins Co. 213
Victor Ring Traveler Co. ..... *

W

Wakefield Bearing Corp. ..... *
Wallerstein Co., Inc. ..... *
Want Ads 212
Warner & Swasey Co. 82
Watson-Williams Mfg. Co. ..... *
West Point Fdy. & Mach. Co. 182
West Side Foundry Co. 191
Westinghouse Electric Corp. 46, 47
White and Company 32
Whitehead Engr. Co. ..... *
Whitin Machine Works 13
Whitinsville Spinning Ring Co. 185
Wicaco Machine Corp. 200
Wildman Mfg. Co. ..... *
Wolf & Co., Jacques 146
Wonalancet Company 190

Y

Young Aniline Works ..... *

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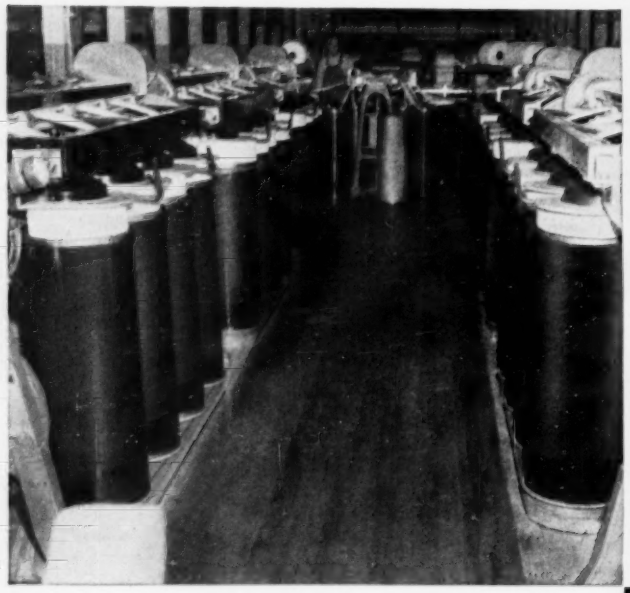

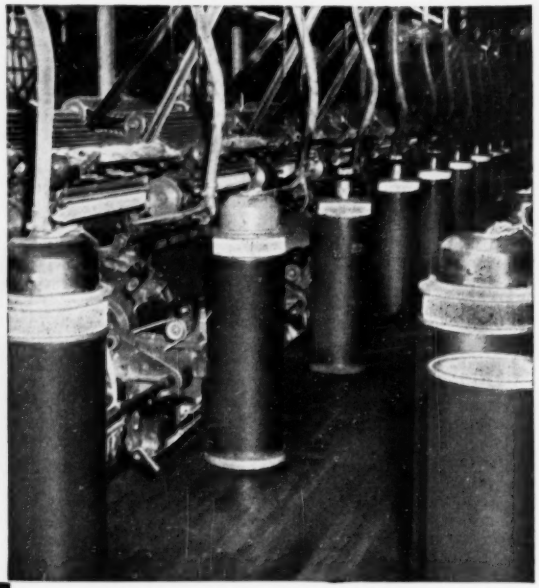

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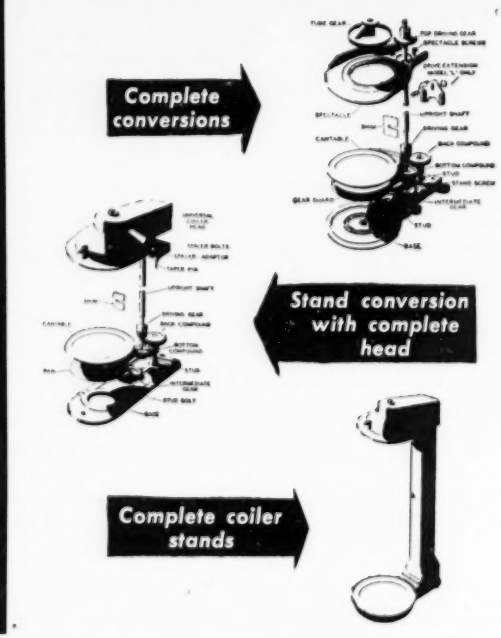

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